GExperts Learning Academy

Short Courses

Short-course study and facilitator manual

35 courses | 10 modules per course | 10 practice questions per module

Study resource and facilitator reference

Draft content for learning and review. Course pages on the Academy website contain interactive module navigation and answer reveals. This resource does not confer an accredited qualification or external certification. Verify laws, standards, site procedures and awarding-body requirements before delivery.

Contents and use

Use the module objectives, lessons, teaching notes and activities to guide facilitated study. Learners should attempt the practice questions before checking the answer key at the end of each module.

SC-001 | Namibia Oil and Gas 101: The Orange Basin to First Production

Level: SC | Duration: 1 days | Audience: Learners appropriate to the stated programme level

1 days SC programme focused on Namibia Oil and Gas 101: The Orange Basin to First Production, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Namibia Oil and Gas 101: The Orange Basin to First Production.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Petroleum value chain

Learning objectives

- Explain petroleum value chain, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum value chain
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Exploration tests whether a petroleum system exists; appraisal narrows uncertainty; development creates wells and facilities; production converts reservoir fluids into saleable streams. Transport, refining and marketing connect production to users. Show each interface on a reservoir-to-customer diagram, including ownership and custody transfer.

Decision logic. A discovery is evidence of hydrocarbons, not proof of an investable project. Commerciality also requires recoverable volume, deliverability, market access, finance, permits and acceptable impacts. Ask learners which organisation owns each decision and which evidence is still missing.

Worked example. A fictional discovery has oil samples but no flow test. Its next decision is appraisal, not a promised first-production date.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draw seven value-chain stages and identify one supplier opportunity and one evidence requirement at each.

Model answer guide. Accept stage-specific evidence and distinguish sampling from sustained deliverability. Reject guaranteed employment or production dates.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draw seven value-chain stages and identify one supplier opportunity and one evidence requirement at each.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum value chain?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum value chain?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum value chain be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum value chain?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum value chain?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum value chain?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum value chain. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum value chain contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum value chain?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum value chain?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Appraisal to production decision gates

Learning objectives

- Explain appraisal to production decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Appraisal to production decision gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Teach five instructional gates: opportunity screening, concept selection, definition, execution and operations readiness. Gate names vary by company. Each gate needs a decision owner, minimum evidence, uncertainty range and documented conditions. Distinguish a gate decision from routine progress reporting.

Decision logic. Appraisal can change the resource range or reveal poor productivity. Sanction requires technical maturity and commercial confidence; execution still faces schedule and integration risk. Put unknowns in an evidence register with owner and due date, rather than quietly turning assumptions into facts.

Worked example. A concept looks profitable but lacks a credible export route. The review can defer sanction while route studies proceed.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a gate checklist for a fictional Namibian deepwater development.

Model answer guide. Include reservoir, cost, export, HSE, permits and financing evidence, with conditional decisions where evidence is insufficient.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a gate checklist for a fictional Namibian deepwater development.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of appraisal to production decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about appraisal to production decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about appraisal to production decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating appraisal to production decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in appraisal to production decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning appraisal to production decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for appraisal to production decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on appraisal to production decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about appraisal to production decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in appraisal to production decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Petroleum systems and basin analysis

Learning objectives

- Explain petroleum systems and basin analysis, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum systems and basin analysis
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Source rock generates hydrocarbons after sufficient burial and heating. Migration moves fluids toward reservoir rock; a seal and trap retain them. Timing matters: a trap formed after migration may be uncharged. Draw an events chart alongside a basin cross-section.

Decision logic. Separate regional play evidence from prospect-specific evidence. Basin analogues help frame hypotheses but cannot prove reservoir quality or charge in a new location. Ask what observation would falsify each element of the proposed petroleum system.

Worked example. A mapped trap exists, but the migration pathway is uncertain. Increasing trap area does not solve charge uncertainty.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Construct an elements-and-processes matrix with evidence, uncertainty and a next test.

Model answer guide. Require source, maturity, migration, reservoir, seal, trap and timing; identify charge as an unresolved dependency.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Construct an elements-and-processes matrix with evidence, uncertainty and a next test.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum systems and basin analysis?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum systems and basin analysis?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum systems and basin analysis be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum systems and basin analysis?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum systems and basin analysis?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum systems and basin analysis?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum systems and basin analysis. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum systems and basin analysis contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum systems and basin analysis?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum systems and basin analysis?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Local content and national value

Learning objectives

- Explain local content and national value, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Local content and national value
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Local content can include employment, skills, supplier participation and durable industrial capability. Distinguish domestic ownership, local expenditure and actual value retained locally. A purchase from a locally registered importer may contain little domestic production.

Decision logic. Measure outcomes with a defined boundary, baseline and evidence. Avoid assuming a proposed policy target is current law. Supplier development must protect quality and safety while building realistic capacity and fair access.

Worked example. A fictional USD 1 million local invoice contains USD 850,000 imported equipment and USD 150,000 local services.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the local-service share and propose more meaningful indicators.

Model answer guide. Fifteen percent in this simplified boundary; employment, skills and retained value need separate evidence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the local-service share and propose more meaningful indicators.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of local content and national value?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about local content and national value?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about local content and national value be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating local content and national value?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in local content and national value?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning local content and national value?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for local content and national value. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on local content and national value contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about local content and national value?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in local content and national value?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Namibia Oil and Gas 101: The Orange Basin to First Production: Work Planning

Learning objectives

- Explain namibia oil and gas 101: the orange basin to first production: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Namibia Oil and Gas 101: The Orange Basin to First Production: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Namibia Oil and Gas 101: The Orange Basin to First Production: Work Planning describes a practical part of Namibia Oil and Gas 101: The Orange Basin to First Production. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for namibia oil and gas 101: the orange basin to first production: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans namibia oil and gas 101: the orange basin to first production: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of namibia oil and gas 101: the orange basin to first production: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about namibia oil and gas 101: the orange basin to first production: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about namibia oil and gas 101: the orange basin to first production: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating namibia oil and gas 101: the orange basin to first production: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in namibia oil and gas 101: the orange basin to first production: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning namibia oil and gas 101: the orange basin to first production: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for namibia oil and gas 101: the orange basin to first production: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on namibia oil and gas 101: the orange basin to first production: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about namibia oil and gas 101: the orange basin to first production: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in namibia oil and gas 101: the orange basin to first production: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Namibia Oil and Gas 101: The Orange Basin to First Production: Data and Performance

Learning objectives

- Explain namibia oil and gas 101: the orange basin to first production: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Namibia Oil and Gas 101: The Orange Basin to First Production: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Namibia Oil and Gas 101: The Orange Basin to First Production: Data and Performance describes a practical part of Namibia Oil and Gas 101: The Orange Basin to First Production. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for namibia oil and gas 101: the orange basin to first production: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans namibia oil and gas 101: the orange basin to first production: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of namibia oil and gas 101: the orange basin to first production: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about namibia oil and gas 101: the orange basin to first production: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about namibia oil and gas 101: the orange basin to first production: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating namibia oil and gas 101: the orange basin to first production: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in namibia oil and gas 101: the orange basin to first production: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning namibia oil and gas 101: the orange basin to first production: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for namibia oil and gas 101: the orange basin to first production: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on namibia oil and gas 101: the orange basin to first production: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about namibia oil and gas 101: the orange basin to first production: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in namibia oil and gas 101: the orange basin to first production: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Namibia Oil and Gas 101: The Orange Basin to First Production: Applied Case

Learning objectives

- Explain namibia oil and gas 101: the orange basin to first production: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Namibia Oil and Gas 101: The Orange Basin to First Production: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Namibia Oil and Gas 101: The Orange Basin to First Production: Applied Case describes a practical part of Namibia Oil and Gas 101: The Orange Basin to First Production. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for namibia oil and gas 101: the orange basin to first production: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans namibia oil and gas 101: the orange basin to first production: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of namibia oil and gas 101: the orange basin to first production: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about namibia oil and gas 101: the orange basin to first production: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about namibia oil and gas 101: the orange basin to first production: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating namibia oil and gas 101: the orange basin to first production: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in namibia oil and gas 101: the orange basin to first production: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning namibia oil and gas 101: the orange basin to first production: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for namibia oil and gas 101: the orange basin to first production: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on namibia oil and gas 101: the orange basin to first production: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about namibia oil and gas 101: the orange basin to first production: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in namibia oil and gas 101: the orange basin to first production: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Namibia Oil and Gas 101: The Orange Basin to First Production: Communication and Escalation

Learning objectives

- Explain namibia oil and gas 101: the orange basin to first production: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Namibia Oil and Gas 101: The Orange Basin to First Production: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Namibia Oil and Gas 101: The Orange Basin to First Production: Communication and Escalation describes a practical part of Namibia Oil and Gas 101: The Orange Basin to First Production. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for namibia oil and gas 101: the orange basin to first production: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans namibia oil and gas 101: the orange basin to first production: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about namibia oil and gas 101: the orange basin to first production: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for namibia oil and gas 101: the orange basin to first production: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on namibia oil and gas 101: the orange basin to first production: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in namibia oil and gas 101: the orange basin to first production: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Namibia Oil and Gas 101: The Orange Basin to First Production: Knowledge Check

Learning objectives

- Explain namibia oil and gas 101: the orange basin to first production: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Namibia Oil and Gas 101: The Orange Basin to First Production: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Namibia Oil and Gas 101: The Orange Basin to First Production: Knowledge Check describes a practical part of Namibia Oil and Gas 101: The Orange Basin to First Production. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for namibia oil and gas 101: the orange basin to first production: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans namibia oil and gas 101: the orange basin to first production: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of namibia oil and gas 101: the orange basin to first production: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about namibia oil and gas 101: the orange basin to first production: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about namibia oil and gas 101: the orange basin to first production: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating namibia oil and gas 101: the orange basin to first production: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in namibia oil and gas 101: the orange basin to first production: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning namibia oil and gas 101: the orange basin to first production: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for namibia oil and gas 101: the orange basin to first production: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on namibia oil and gas 101: the orange basin to first production: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about namibia oil and gas 101: the orange basin to first production: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in namibia oil and gas 101: the orange basin to first production: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Namibia Oil and Gas 101: The Orange Basin to First Production: Competence Review

Learning objectives

- Explain namibia oil and gas 101: the orange basin to first production: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Namibia Oil and Gas 101: The Orange Basin to First Production: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Namibia Oil and Gas 101: The Orange Basin to First Production

Teaching notes

Teaching notes

Core explanation. Namibia Oil and Gas 101: The Orange Basin to First Production: Competence Review describes a practical part of Namibia Oil and Gas 101: The Orange Basin to First Production. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for namibia oil and gas 101: the orange basin to first production: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans namibia oil and gas 101: the orange basin to first production: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for namibia oil and gas 101: the orange basin to first production: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of namibia oil and gas 101: the orange basin to first production: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about namibia oil and gas 101: the orange basin to first production: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about namibia oil and gas 101: the orange basin to first production: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating namibia oil and gas 101: the orange basin to first production: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in namibia oil and gas 101: the orange basin to first production: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning namibia oil and gas 101: the orange basin to first production: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for namibia oil and gas 101: the orange basin to first production: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on namibia oil and gas 101: the orange basin to first production: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about namibia oil and gas 101: the orange basin to first production: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in namibia oil and gas 101: the orange basin to first production: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-002 | Oil and Gas Value Chain for Non-Technical Professionals

Level: SC | Duration: 1 days | Audience: Learners appropriate to the stated programme level

1 days SC programme focused on Oil and Gas Value Chain for Non-Technical Professionals, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Oil and Gas Value Chain for Non-Technical Professionals.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Petroleum value chain

Learning objectives

- Explain petroleum value chain, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum value chain
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Exploration tests whether a petroleum system exists; appraisal narrows uncertainty; development creates wells and facilities; production converts reservoir fluids into saleable streams. Transport, refining and marketing connect production to users. Show each interface on a reservoir-to-customer diagram, including ownership and custody transfer.

Decision logic. A discovery is evidence of hydrocarbons, not proof of an investable project. Commerciality also requires recoverable volume, deliverability, market access, finance, permits and acceptable impacts. Ask learners which organisation owns each decision and which evidence is still missing.

Worked example. A fictional discovery has oil samples but no flow test. Its next decision is appraisal, not a promised first-production date.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draw seven value-chain stages and identify one supplier opportunity and one evidence requirement at each.

Model answer guide. Accept stage-specific evidence and distinguish sampling from sustained deliverability. Reject guaranteed employment or production dates.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draw seven value-chain stages and identify one supplier opportunity and one evidence requirement at each.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum value chain?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum value chain?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum value chain be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum value chain?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum value chain?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum value chain?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum value chain. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum value chain contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum value chain?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum value chain?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Separation gas processing and utilities

Learning objectives

- Explain separation gas processing and utilities, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Separation gas processing and utilities
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Production fluids are separated into oil, gas and water streams before further treatment. Gas compression, dehydration, oil stabilisation and utilities support product specifications and safe operation. Explain process flow diagrams before introducing instrument-level drawings.

Decision logic. Mass balance links input, output and accumulation. A bottleneck in power, cooling or compression can limit oil production. Product quality, emissions and integrity constrain throughput. Actual settings and alarm responses must follow approved procedures.

Worked example. A separator receives 100 mass units/hour; 55 leave as oil, 20 as gas and 25 as water, with no accumulation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Reconcile a second balance with a missing stream and discuss measurement uncertainty.

Model answer guide. Total output plus accumulation must equal input; unexplained imbalance requires data checking.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Reconcile a second balance with a missing stream and discuss measurement uncertainty.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of separation gas processing and utilities?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about separation gas processing and utilities?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about separation gas processing and utilities be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating separation gas processing and utilities?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in separation gas processing and utilities?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning separation gas processing and utilities?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for separation gas processing and utilities. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on separation gas processing and utilities contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about separation gas processing and utilities?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in separation gas processing and utilities?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Global petroleum markets and price formation

Learning objectives

- Explain global petroleum markets and price formation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Global petroleum markets and price formation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Crude markets connect producers, traders, refiners and transport providers. Prices often reference benchmarks adjusted for quality, location and contract terms. OPEC is a producers' organisation, not a buyer qualification or an assurance of payment.

Decision logic. Separate physical delivery, price exposure and credit exposure. A high headline price can be offset by freight, quality discounts, finance or default risk. No company is labelled reliable without current due diligence and an approved transaction basis.

Worked example. Offer A is USD 75/barrel with USD 5 freight; offer B is USD 73 with USD 1 freight, before other terms.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare simplified netbacks and identify non-price checks.

Model answer guide. A gives 70 and B gives 72 USD/barrel; check credit, delivery, sanctions and quality terms before selection.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare simplified netbacks and identify non-price checks.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of global petroleum markets and price formation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about global petroleum markets and price formation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about global petroleum markets and price formation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating global petroleum markets and price formation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in global petroleum markets and price formation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning global petroleum markets and price formation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for global petroleum markets and price formation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on global petroleum markets and price formation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about global petroleum markets and price formation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in global petroleum markets and price formation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Petroleum economics overview

Learning objectives

- Explain petroleum economics overview, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum economics overview
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Economics translates technical scenarios into cash-flow consequences. Define decision alternatives and the perspective first, then estimate volume, timing, realised prices, costs, fiscal payments and closure. Compare value, affordability and exposure together.

Decision logic. Use transparent assumptions with units and source dates. A model's arithmetic can be correct while its development assumptions are implausible. Separate geological uncertainty, engineering uncertainty and market risk, and show which could reverse the decision.

Worked example. Two fictional projects have equal undiscounted cash surplus but one receives cash five years later.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Explain which may have greater present value and what additional information is required.

Model answer guide. Earlier comparable cash usually has greater present value at positive discount rates; require timing and risk details.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Explain which may have greater present value and what additional information is required.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics overview?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics overview?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics overview be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics overview?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics overview?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics overview?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics overview. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics overview contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics overview?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics overview?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Oil and Gas Value Chain for Non-Technical Professionals: Work Planning

Learning objectives

- Explain oil and gas value chain for non-technical professionals: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Value Chain for Non-Technical Professionals: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Oil and Gas Value Chain for Non-Technical Professionals: Work Planning describes a practical part of Oil and Gas Value Chain for Non-Technical Professionals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas value chain for non-technical professionals: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas value chain for non-technical professionals: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas value chain for non-technical professionals: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas value chain for non-technical professionals: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas value chain for non-technical professionals: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas value chain for non-technical professionals: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas value chain for non-technical professionals: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas value chain for non-technical professionals: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas value chain for non-technical professionals: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas value chain for non-technical professionals: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas value chain for non-technical professionals: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas value chain for non-technical professionals: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas value chain for non-technical professionals: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas value chain for non-technical professionals: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Oil and Gas Value Chain for Non-Technical Professionals: Data and Performance

Learning objectives

- Explain oil and gas value chain for non-technical professionals: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Value Chain for Non-Technical Professionals: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Oil and Gas Value Chain for Non-Technical Professionals: Data and Performance describes a practical part of Oil and Gas Value Chain for Non-Technical Professionals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas value chain for non-technical professionals: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas value chain for non-technical professionals: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas value chain for non-technical professionals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas value chain for non-technical professionals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas value chain for non-technical professionals: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas value chain for non-technical professionals: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas value chain for non-technical professionals: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas value chain for non-technical professionals: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas value chain for non-technical professionals: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas value chain for non-technical professionals: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas value chain for non-technical professionals: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas value chain for non-technical professionals: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas value chain for non-technical professionals: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas value chain for non-technical professionals: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Oil and Gas Value Chain for Non-Technical Professionals: Applied Case

Learning objectives

- Explain oil and gas value chain for non-technical professionals: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Value Chain for Non-Technical Professionals: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Oil and Gas Value Chain for Non-Technical Professionals: Applied Case describes a practical part of Oil and Gas Value Chain for Non-Technical Professionals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas value chain for non-technical professionals: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas value chain for non-technical professionals: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas value chain for non-technical professionals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas value chain for non-technical professionals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas value chain for non-technical professionals: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas value chain for non-technical professionals: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas value chain for non-technical professionals: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas value chain for non-technical professionals: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas value chain for non-technical professionals: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas value chain for non-technical professionals: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas value chain for non-technical professionals: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas value chain for non-technical professionals: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas value chain for non-technical professionals: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas value chain for non-technical professionals: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Oil and Gas Value Chain for Non-Technical Professionals: Communication and Escalation

Learning objectives

- Explain oil and gas value chain for non-technical professionals: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Value Chain for Non-Technical Professionals: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Oil and Gas Value Chain for Non-Technical Professionals: Communication and Escalation describes a practical part of Oil and Gas Value Chain for Non-Technical Professionals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas value chain for non-technical professionals: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas value chain for non-technical professionals: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas value chain for non-technical professionals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas value chain for non-technical professionals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas value chain for non-technical professionals: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas value chain for non-technical professionals: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas value chain for non-technical professionals: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas value chain for non-technical professionals: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas value chain for non-technical professionals: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas value chain for non-technical professionals: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas value chain for non-technical professionals: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas value chain for non-technical professionals: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas value chain for non-technical professionals: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas value chain for non-technical professionals: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Oil and Gas Value Chain for Non-Technical Professionals: Knowledge Check

Learning objectives

- Explain oil and gas value chain for non-technical professionals: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Value Chain for Non-Technical Professionals: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Oil and Gas Value Chain for Non-Technical Professionals: Knowledge Check describes a practical part of Oil and Gas Value Chain for Non-Technical Professionals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas value chain for non-technical professionals: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas value chain for non-technical professionals: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas value chain for non-technical professionals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas value chain for non-technical professionals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas value chain for non-technical professionals: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas value chain for non-technical professionals: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas value chain for non-technical professionals: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas value chain for non-technical professionals: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas value chain for non-technical professionals: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas value chain for non-technical professionals: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas value chain for non-technical professionals: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas value chain for non-technical professionals: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas value chain for non-technical professionals: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas value chain for non-technical professionals: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Oil and Gas Value Chain for Non-Technical Professionals: Competence Review

Learning objectives

- Explain oil and gas value chain for non-technical professionals: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Value Chain for Non-Technical Professionals: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Value Chain for Non-Technical Professionals

Teaching notes

Teaching notes

Core explanation. Oil and Gas Value Chain for Non-Technical Professionals: Competence Review describes a practical part of Oil and Gas Value Chain for Non-Technical Professionals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas value chain for non-technical professionals: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas value chain for non-technical professionals: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas value chain for non-technical professionals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas value chain for non-technical professionals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas value chain for non-technical professionals: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas value chain for non-technical professionals: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas value chain for non-technical professionals: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas value chain for non-technical professionals: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas value chain for non-technical professionals: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas value chain for non-technical professionals: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas value chain for non-technical professionals: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas value chain for non-technical professionals: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas value chain for non-technical professionals: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas value chain for non-technical professionals: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-003 | Petroleum Geology for Non-Geoscientists

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Petroleum Geology for Non-Geoscientists, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Petroleum Geology for Non-Geoscientists.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Petroleum systems and basin analysis

Learning objectives

- Explain petroleum systems and basin analysis, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum systems and basin analysis
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Source rock generates hydrocarbons after sufficient burial and heating. Migration moves fluids toward reservoir rock; a seal and trap retain them. Timing matters: a trap formed after migration may be uncharged. Draw an events chart alongside a basin cross-section.

Decision logic. Separate regional play evidence from prospect-specific evidence. Basin analogues help frame hypotheses but cannot prove reservoir quality or charge in a new location. Ask what observation would falsify each element of the proposed petroleum system.

Worked example. A mapped trap exists, but the migration pathway is uncertain. Increasing trap area does not solve charge uncertainty.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Construct an elements-and-processes matrix with evidence, uncertainty and a next test.

Model answer guide. Require source, maturity, migration, reservoir, seal, trap and timing; identify charge as an unresolved dependency.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Construct an elements-and-processes matrix with evidence, uncertainty and a next test.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum systems and basin analysis?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum systems and basin analysis?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum systems and basin analysis be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum systems and basin analysis?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum systems and basin analysis?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum systems and basin analysis?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum systems and basin analysis. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum systems and basin analysis contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum systems and basin analysis?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum systems and basin analysis?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Structural geology and trapping

Learning objectives

- Explain structural geology and trapping, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Structural geology and trapping
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Faults and folds alter reservoir geometry and can create closures. A fault can transmit or restrict flow depending on juxtaposition, fault-zone properties and stress. Explain structure contours and spill points using a simple tilted layer rather than a decorative map.

Decision logic. Interpretation should preserve multiple fault geometries where data are ambiguous. Check closure against depth uncertainty, reservoir juxtaposition and potential leakage. A fault polygon on a map is not direct proof of a sealing fault.

Worked example. Two interpretations place the spill point at different depths, changing closure area. Retain both cases until tied to better evidence.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Sketch a faulted closure, label spill point and propose a fault-seal uncertainty test.

Model answer guide. Credit consistent geometry and an explicit seal hypothesis; do not award certainty based only on fault presence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Sketch a faulted closure, label spill point and propose a fault-seal uncertainty test.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of structural geology and trapping?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about structural geology and trapping?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about structural geology and trapping be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating structural geology and trapping?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in structural geology and trapping?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning structural geology and trapping?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for structural geology and trapping. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on structural geology and trapping contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about structural geology and trapping?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in structural geology and trapping?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Sedimentology and stratigraphy

Learning objectives

- Explain sedimentology and stratigraphy, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Sedimentology and stratigraphy
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Depositional processes control grain size, sorting and architecture. Deepwater channels and lobes can form reservoirs, while mud-rich intervals may compartmentalise flow. Stratigraphy relates rock packages through time; lithological similarity alone does not prove hydraulic connection.

Decision logic. Use core, logs and seismic together. Explain how channel stacking changes net-to-gross and connectivity. Contrast a continuous sand body with isolated lenses, then ask how the same total sand volume can produce different well performance.

Worked example. Two wells contain sand at similar depths, but an intervening mud-rich channel margin could prevent communication.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build two alternative depositional models from fictional well descriptions.

Model answer guide. Both models should honour observations and identify a discriminating observation such as pressure communication or additional seismic evidence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build two alternative depositional models from fictional well descriptions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of sedimentology and stratigraphy?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about sedimentology and stratigraphy?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about sedimentology and stratigraphy be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating sedimentology and stratigraphy?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in sedimentology and stratigraphy?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning sedimentology and stratigraphy?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for sedimentology and stratigraphy. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on sedimentology and stratigraphy contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about sedimentology and stratigraphy?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in sedimentology and stratigraphy?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Volumetric estimation

Learning objectives

- Explain volumetric estimation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Volumetric estimation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Oil initially in place can be estimated from bulk rock volume, net-to-gross, porosity and hydrocarbon saturation, divided by oil formation volume factor. Keep all units consistent. In-place oil is different from recoverable resources, which require recovery and development assumptions.

Decision logic. Avoid combining unrelated optimistic parameters into an unlabelled base case. Preserve dependence between area, thickness and reservoir quality. Present ranges and indicate which measurements drive uncertainty. Recovery factor is a scenario assumption until supported by reservoir evaluation.

Worked example. Using SI volumes: 1 million cubic metres bulk rock, NTG 0.5, porosity 0.2, oil saturation 0.7 and Bo 1.2 gives about 58,333 stock-tank cubic metres in place.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Recalculate after halving net-to-gross and interpret the result.

Model answer guide. The estimate halves to about 29,167 cubic metres; this remains in-place oil, not booked reserves.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Recalculate after halving net-to-gross and interpret the result.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of volumetric estimation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about volumetric estimation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about volumetric estimation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating volumetric estimation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in volumetric estimation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning volumetric estimation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for volumetric estimation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on volumetric estimation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about volumetric estimation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in volumetric estimation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Petroleum Geology for Non-Geoscientists: Work Planning

Learning objectives

- Explain petroleum geology for non-geoscientists: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Geology for Non-Geoscientists: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Petroleum Geology for Non-Geoscientists: Work Planning describes a practical part of Petroleum Geology for Non-Geoscientists. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum geology for non-geoscientists: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum geology for non-geoscientists: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum geology for non-geoscientists: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum geology for non-geoscientists: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum geology for non-geoscientists: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum geology for non-geoscientists: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum geology for non-geoscientists: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum geology for non-geoscientists: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum geology for non-geoscientists: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum geology for non-geoscientists: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum geology for non-geoscientists: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum geology for non-geoscientists: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum geology for non-geoscientists: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum geology for non-geoscientists: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Petroleum Geology for Non-Geoscientists: Data and Performance

Learning objectives

- Explain petroleum geology for non-geoscientists: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Geology for Non-Geoscientists: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Petroleum Geology for Non-Geoscientists: Data and Performance describes a practical part of Petroleum Geology for Non-Geoscientists. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum geology for non-geoscientists: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum geology for non-geoscientists: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum geology for non-geoscientists: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum geology for non-geoscientists: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum geology for non-geoscientists: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum geology for non-geoscientists: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum geology for non-geoscientists: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum geology for non-geoscientists: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum geology for non-geoscientists: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum geology for non-geoscientists: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum geology for non-geoscientists: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum geology for non-geoscientists: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum geology for non-geoscientists: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum geology for non-geoscientists: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Petroleum Geology for Non-Geoscientists: Applied Case

Learning objectives

- Explain petroleum geology for non-geoscientists: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Geology for Non-Geoscientists: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Petroleum Geology for Non-Geoscientists: Applied Case describes a practical part of Petroleum Geology for Non-Geoscientists. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum geology for non-geoscientists: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum geology for non-geoscientists: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum geology for non-geoscientists: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum geology for non-geoscientists: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum geology for non-geoscientists: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum geology for non-geoscientists: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum geology for non-geoscientists: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum geology for non-geoscientists: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum geology for non-geoscientists: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum geology for non-geoscientists: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum geology for non-geoscientists: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum geology for non-geoscientists: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum geology for non-geoscientists: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum geology for non-geoscientists: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Petroleum Geology for Non-Geoscientists: Communication and Escalation

Learning objectives

- Explain petroleum geology for non-geoscientists: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Geology for Non-Geoscientists: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Petroleum Geology for Non-Geoscientists: Communication and Escalation describes a practical part of Petroleum Geology for Non-Geoscientists. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum geology for non-geoscientists: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum geology for non-geoscientists: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum geology for non-geoscientists: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum geology for non-geoscientists: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum geology for non-geoscientists: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum geology for non-geoscientists: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum geology for non-geoscientists: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum geology for non-geoscientists: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum geology for non-geoscientists: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum geology for non-geoscientists: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum geology for non-geoscientists: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum geology for non-geoscientists: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum geology for non-geoscientists: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum geology for non-geoscientists: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Petroleum Geology for Non-Geoscientists: Knowledge Check

Learning objectives

- Explain petroleum geology for non-geoscientists: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Geology for Non-Geoscientists: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Petroleum Geology for Non-Geoscientists: Knowledge Check describes a practical part of Petroleum Geology for Non-Geoscientists. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum geology for non-geoscientists: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum geology for non-geoscientists: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum geology for non-geoscientists: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum geology for non-geoscientists: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum geology for non-geoscientists: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum geology for non-geoscientists: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum geology for non-geoscientists: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum geology for non-geoscientists: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum geology for non-geoscientists: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum geology for non-geoscientists: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum geology for non-geoscientists: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum geology for non-geoscientists: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum geology for non-geoscientists: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum geology for non-geoscientists: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Petroleum Geology for Non-Geoscientists: Competence Review

Learning objectives

- Explain petroleum geology for non-geoscientists: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Geology for Non-Geoscientists: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Geology for Non-Geoscientists

Teaching notes

Teaching notes

Core explanation. Petroleum Geology for Non-Geoscientists: Competence Review describes a practical part of Petroleum Geology for Non-Geoscientists. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum geology for non-geoscientists: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum geology for non-geoscientists: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum geology for non-geoscientists: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum geology for non-geoscientists: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum geology for non-geoscientists: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum geology for non-geoscientists: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum geology for non-geoscientists: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum geology for non-geoscientists: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum geology for non-geoscientists: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum geology for non-geoscientists: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum geology for non-geoscientists: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum geology for non-geoscientists: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum geology for non-geoscientists: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum geology for non-geoscientists: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-004 | Seismic Interpretation and Formation Evaluation Essentials

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Seismic Interpretation and Formation Evaluation Essentials, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Seismic Interpretation and Formation Evaluation Essentials.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Seismic interpretation and depth uncertainty

Learning objectives

- Explain seismic interpretation and depth uncertainty, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic interpretation and depth uncertainty
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic reflections arise from changes in acoustic properties. Teach acquisition, processing, well ties, horizon picking and fault interpretation as connected steps. A bright amplitude can reflect several causes; it is not automatically a hydrocarbon indicator.

Decision logic. Time-to-depth conversion depends on velocity. Track picking, velocity and structural uncertainties separately. Compare maps produced with alternative velocity models and explain how closure and proposed well location change. Interpret within survey resolution and processing limitations.

Worked example. For vertical two-way time of 2 seconds and constant velocity 2500 m/s, depth is 2500 m. A 10% velocity error changes that estimate by 250 m.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate both depth cases and explain the consequence for a prospect map.

Model answer guide. Use depth equals velocity times two-way time divided by two; note constant-velocity simplification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate both depth cases and explain the consequence for a prospect map.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and depth uncertainty?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and depth uncertainty?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and depth uncertainty be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and depth uncertainty?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and depth uncertainty?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and depth uncertainty?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and depth uncertainty. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and depth uncertainty contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and depth uncertainty?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and depth uncertainty?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Petrophysics and well logs

Learning objectives

- Explain petrophysics and well logs, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petrophysics and well logs
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Gamma ray supports lithology interpretation; resistivity responds to fluid and rock properties; density and neutron measurements help estimate porosity. Explain environmental corrections, tool depth matching and the difference between measured signals and interpreted rock properties.

Decision logic. A single curve cannot establish pay. Combine logs with core, fluid samples and pressure data. Document cutoffs and uncertainty. Shaly sands, invasion and borehole conditions can invalidate simple clean-sand assumptions and should prompt specialist review.

Worked example. An interval has high resistivity but low effective porosity. Do not classify it as productive pay from resistivity alone.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Annotate a fictional three-curve log and identify evidence needed before selecting pay.

Model answer guide. Look for integrated porosity, lithology, saturation and mobility evidence; flag borehole effects and non-unique responses.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Annotate a fictional three-curve log and identify evidence needed before selecting pay.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petrophysics and well logs?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petrophysics and well logs?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petrophysics and well logs be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petrophysics and well logs?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petrophysics and well logs?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petrophysics and well logs?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petrophysics and well logs. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petrophysics and well logs contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petrophysics and well logs?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petrophysics and well logs?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Formation evaluation and fluid evidence

Learning objectives

- Explain formation evaluation and fluid evidence, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Formation evaluation and fluid evidence
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Formation evaluation combines logs, cores, pressure measurements and samples to infer fluid type, contacts, rock quality and mobility. Explain why sample contamination and poor pressure stabilisation can distort conclusions. Distinguish net reservoir from net pay.

Decision logic. Pressure gradients may help infer fluid contacts and connectivity but require consistent datum and quality control. Test alternative fluid models before extrapolating beyond the well. An oil sample demonstrates fluid occurrence, while flow capacity requires additional evidence.

Worked example. Two pressure points from different depths cannot define a reliable contact if one has poor stabilisation or uncertain depth.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional formation-evaluation evidence table and assign confidence levels.

Model answer guide. Reject low-quality points with reasons, retain alternative contacts, and specify confirmatory sampling or testing.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional formation-evaluation evidence table and assign confidence levels.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of formation evaluation and fluid evidence?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about formation evaluation and fluid evidence?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about formation evaluation and fluid evidence be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating formation evaluation and fluid evidence?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in formation evaluation and fluid evidence?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning formation evaluation and fluid evidence?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for formation evaluation and fluid evidence. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on formation evaluation and fluid evidence contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about formation evaluation and fluid evidence?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in formation evaluation and fluid evidence?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Prospect risking and volumetrics

Learning objectives

- Explain prospect risking and volumetrics, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Prospect risking and volumetrics
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Geological chance of success describes the chance that a prospect meets defined geological success criteria. Commercial success includes further conditions. Separate charge, reservoir, seal and trap risks and explain any dependence before multiplying probabilities.

Decision logic. Risked volume is a decision aid rather than a physical volume that will be produced. Compare value of information with appraisal cost and decision consequences. Use scenario trees to show failure, subcommercial discovery and commercial outcomes.

Worked example. If independent charge and reservoir probabilities are 0.8 and 0.5 and all other factors are certain, joint chance is 0.4.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate joint chance, then explain why independence is a strong assumption.

Model answer guide. Forty percent only under the stated assumptions; shared geological evidence can create dependence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate joint chance, then explain why independence is a strong assumption.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of prospect risking and volumetrics?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about prospect risking and volumetrics?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about prospect risking and volumetrics be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating prospect risking and volumetrics?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in prospect risking and volumetrics?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning prospect risking and volumetrics?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for prospect risking and volumetrics. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on prospect risking and volumetrics contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about prospect risking and volumetrics?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in prospect risking and volumetrics?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Seismic Interpretation and Formation Evaluation Essentials: Work Planning

Learning objectives

- Explain seismic interpretation and formation evaluation essentials: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic Interpretation and Formation Evaluation Essentials: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic Interpretation and Formation Evaluation Essentials: Work Planning describes a practical part of Seismic Interpretation and Formation Evaluation Essentials. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for seismic interpretation and formation evaluation essentials: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans seismic interpretation and formation evaluation essentials: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for seismic interpretation and formation evaluation essentials: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for seismic interpretation and formation evaluation essentials: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and formation evaluation essentials: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and formation evaluation essentials: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and formation evaluation essentials: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and formation evaluation essentials: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and formation evaluation essentials: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and formation evaluation essentials: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and formation evaluation essentials: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and formation evaluation essentials: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and formation evaluation essentials: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and formation evaluation essentials: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Seismic Interpretation and Formation Evaluation Essentials: Data and Performance

Learning objectives

- Explain seismic interpretation and formation evaluation essentials: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic Interpretation and Formation Evaluation Essentials: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic Interpretation and Formation Evaluation Essentials: Data and Performance describes a practical part of Seismic Interpretation and Formation Evaluation Essentials. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for seismic interpretation and formation evaluation essentials: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans seismic interpretation and formation evaluation essentials: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for seismic interpretation and formation evaluation essentials: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for seismic interpretation and formation evaluation essentials: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and formation evaluation essentials: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and formation evaluation essentials: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and formation evaluation essentials: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and formation evaluation essentials: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and formation evaluation essentials: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and formation evaluation essentials: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and formation evaluation essentials: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and formation evaluation essentials: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and formation evaluation essentials: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and formation evaluation essentials: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Seismic Interpretation and Formation Evaluation Essentials: Applied Case

Learning objectives

- Explain seismic interpretation and formation evaluation essentials: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic Interpretation and Formation Evaluation Essentials: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic Interpretation and Formation Evaluation Essentials: Applied Case describes a practical part of Seismic Interpretation and Formation Evaluation Essentials. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for seismic interpretation and formation evaluation essentials: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans seismic interpretation and formation evaluation essentials: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for seismic interpretation and formation evaluation essentials: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for seismic interpretation and formation evaluation essentials: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and formation evaluation essentials: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and formation evaluation essentials: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and formation evaluation essentials: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and formation evaluation essentials: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and formation evaluation essentials: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and formation evaluation essentials: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and formation evaluation essentials: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and formation evaluation essentials: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and formation evaluation essentials: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and formation evaluation essentials: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Seismic Interpretation and Formation Evaluation Essentials: Communication and Escalation

Learning objectives

- Explain seismic interpretation and formation evaluation essentials: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic Interpretation and Formation Evaluation Essentials: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic Interpretation and Formation Evaluation Essentials: Communication and Escalation describes a practical part of Seismic Interpretation and Formation Evaluation Essentials. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for seismic interpretation and formation evaluation essentials: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans seismic interpretation and formation evaluation essentials: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for seismic interpretation and formation evaluation essentials: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for seismic interpretation and formation evaluation essentials: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and formation evaluation essentials: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and formation evaluation essentials: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and formation evaluation essentials: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and formation evaluation essentials: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and formation evaluation essentials: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and formation evaluation essentials: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and formation evaluation essentials: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and formation evaluation essentials: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and formation evaluation essentials: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and formation evaluation essentials: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Seismic Interpretation and Formation Evaluation Essentials: Knowledge Check

Learning objectives

- Explain seismic interpretation and formation evaluation essentials: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic Interpretation and Formation Evaluation Essentials: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic Interpretation and Formation Evaluation Essentials: Knowledge Check describes a practical part of Seismic Interpretation and Formation Evaluation Essentials. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for seismic interpretation and formation evaluation essentials: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans seismic interpretation and formation evaluation essentials: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for seismic interpretation and formation evaluation essentials: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for seismic interpretation and formation evaluation essentials: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and formation evaluation essentials: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and formation evaluation essentials: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and formation evaluation essentials: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and formation evaluation essentials: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and formation evaluation essentials: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and formation evaluation essentials: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and formation evaluation essentials: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and formation evaluation essentials: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and formation evaluation essentials: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and formation evaluation essentials: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Seismic Interpretation and Formation Evaluation Essentials: Competence Review

Learning objectives

- Explain seismic interpretation and formation evaluation essentials: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Seismic Interpretation and Formation Evaluation Essentials: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Seismic Interpretation and Formation Evaluation Essentials

Teaching notes

Teaching notes

Core explanation. Seismic Interpretation and Formation Evaluation Essentials: Competence Review describes a practical part of Seismic Interpretation and Formation Evaluation Essentials. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for seismic interpretation and formation evaluation essentials: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans seismic interpretation and formation evaluation essentials: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for seismic interpretation and formation evaluation essentials: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for seismic interpretation and formation evaluation essentials: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of seismic interpretation and formation evaluation essentials: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about seismic interpretation and formation evaluation essentials: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about seismic interpretation and formation evaluation essentials: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating seismic interpretation and formation evaluation essentials: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in seismic interpretation and formation evaluation essentials: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning seismic interpretation and formation evaluation essentials: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for seismic interpretation and formation evaluation essentials: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on seismic interpretation and formation evaluation essentials: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about seismic interpretation and formation evaluation essentials: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in seismic interpretation and formation evaluation essentials: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-005 | Introduction to Offshore Drilling and Rig Crew Operations

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Introduction to Offshore Drilling and Rig Crew Operations, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Introduction to Offshore Drilling and Rig Crew Operations.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Well architecture and drilling systems

Learning objectives

- Explain well architecture and drilling systems, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well architecture and drilling systems
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. A well connects the reservoir to the surface through a designed sequence of hole sections, casing and barriers. Explain measured depth versus true vertical depth, wellhead functions and interfaces with rig, marine riser and subsea equipment.

Decision logic. Well design starts with reservoir objectives, pressures, temperature, hazards and data uncertainty. Casing depth and equipment ratings require engineering calculations and independent review. This course uses diagrams and educational calculations, never an executable drilling programme.

Worked example. A deviated well has greater measured depth than vertical depth; fluid hydrostatic head relates to vertical depth.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Label a fictional well schematic and list five missing design inputs.

Model answer guide. Include pore pressure, fracture limits, temperature, geology and service conditions; distinguish equipment identification from design approval.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Label a fictional well schematic and list five missing design inputs.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well architecture and drilling systems?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well architecture and drilling systems?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well architecture and drilling systems be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well architecture and drilling systems?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well architecture and drilling systems?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well architecture and drilling systems?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well architecture and drilling systems. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well architecture and drilling systems contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well architecture and drilling systems?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well architecture and drilling systems?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Drilling rigs and crew responsibilities

Learning objectives

- Explain drilling rigs and crew responsibilities, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Drilling rigs and crew responsibilities
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Describe roustabout, roughneck, driller, toolpusher and specialist service roles without suggesting job entitlement. Introduce rig floor, pipe handling, mud systems and lifting interfaces. Supervisory accountability does not remove each person's duty to report unsafe conditions.

Decision logic. Use a task-responsibility chart to identify who plans, authorises, executes and verifies work. Shift handovers must communicate well status, restrictions and outstanding actions. Entry-level workers should recognise boundaries and stop rather than improvise around unfamiliar equipment.

Worked example. A new crew member sees an unclear lifting signal. Work pauses until communication and responsibility are re-established.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Role-play a shift handover with one unresolved equipment restriction.

Model answer guide. A good handover identifies status, responsible person, restriction, next action and acknowledgement.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Role-play a shift handover with one unresolved equipment restriction.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of drilling rigs and crew responsibilities?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about drilling rigs and crew responsibilities?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about drilling rigs and crew responsibilities be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating drilling rigs and crew responsibilities?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in drilling rigs and crew responsibilities?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning drilling rigs and crew responsibilities?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for drilling rigs and crew responsibilities. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on drilling rigs and crew responsibilities contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about drilling rigs and crew responsibilities?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in drilling rigs and crew responsibilities?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Drilling fluids and pressure windows

Learning objectives

- Explain drilling fluids and pressure windows, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Drilling fluids and pressure windows
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Drilling fluids transport cuttings, help control pressure, cool equipment and support the borehole. Static hydrostatic pressure depends on density and vertical depth. Circulation adds friction effects; temperature, losses and gas can change behaviour.

Decision logic. Explain the pore-pressure and fracture-pressure window conceptually. Raising density may improve one margin while increasing losses risk. All actual mud programmes and responses remain with competent well teams. Use clearly labelled classroom numbers and consistent SI units.

Worked example. A fluid density of 1100 kg/m3 over 1000 m gives roughly 10.79 MPa hydrostatic pressure using g equals 9.81 m/s2.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate pressure for 1200 kg/m3 and discuss the tradeoff.

Model answer guide. Approximately 11.77 MPa; increased pressure may narrow fracture margin, so higher density is not automatically safer.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate pressure for 1200 kg/m3 and discuss the tradeoff.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of drilling fluids and pressure windows?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about drilling fluids and pressure windows?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about drilling fluids and pressure windows be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating drilling fluids and pressure windows?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in drilling fluids and pressure windows?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning drilling fluids and pressure windows?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for drilling fluids and pressure windows. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on drilling fluids and pressure windows contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about drilling fluids and pressure windows?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in drilling fluids and pressure windows?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Well control and barrier management

Learning objectives

- Explain well control and barrier management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well control and barrier management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. A barrier system prevents unintended fluid flow. Show primary and secondary barrier envelopes and the need for defined performance standards. Recognising indications, reporting promptly and following the authorised well-control programme are distinct from being certified to operate equipment.

Decision logic. Teach barrier status with evidence, not equipment names alone. An installed component may be unavailable, untested or outside its operating envelope. Barrier changes require controlled review. No live well-control drill or shut-in sequence is prescribed by this awareness content.

Worked example. A component appears on the drawing, but its required test record is missing. Treat its verified availability as unresolved.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Construct a barrier-status register from a fictional well diagram.

Model answer guide. Record function, verification, owner, limitation and escalation; do not mark an unverified barrier healthy.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Construct a barrier-status register from a fictional well diagram.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well control and barrier management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well control and barrier management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well control and barrier management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well control and barrier management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well control and barrier management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well control and barrier management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well control and barrier management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well control and barrier management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well control and barrier management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well control and barrier management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Introduction to Offshore Drilling and Rig Crew Operations: Work Planning

Learning objectives

- Explain introduction to offshore drilling and rig crew operations: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Drilling and Rig Crew Operations: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Drilling and Rig Crew Operations: Work Planning describes a practical part of Introduction to Offshore Drilling and Rig Crew Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore drilling and rig crew operations: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore drilling and rig crew operations: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore drilling and rig crew operations: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore drilling and rig crew operations: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore drilling and rig crew operations: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore drilling and rig crew operations: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore drilling and rig crew operations: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore drilling and rig crew operations: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore drilling and rig crew operations: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore drilling and rig crew operations: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore drilling and rig crew operations: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore drilling and rig crew operations: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore drilling and rig crew operations: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore drilling and rig crew operations: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Introduction to Offshore Drilling and Rig Crew Operations: Data and Performance

Learning objectives

- Explain introduction to offshore drilling and rig crew operations: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Drilling and Rig Crew Operations: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Drilling and Rig Crew Operations: Data and Performance describes a practical part of Introduction to Offshore Drilling and Rig Crew Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore drilling and rig crew operations: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore drilling and rig crew operations: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore drilling and rig crew operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore drilling and rig crew operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore drilling and rig crew operations: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore drilling and rig crew operations: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore drilling and rig crew operations: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore drilling and rig crew operations: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore drilling and rig crew operations: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore drilling and rig crew operations: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore drilling and rig crew operations: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore drilling and rig crew operations: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore drilling and rig crew operations: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore drilling and rig crew operations: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Introduction to Offshore Drilling and Rig Crew Operations: Applied Case

Learning objectives

- Explain introduction to offshore drilling and rig crew operations: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Drilling and Rig Crew Operations: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Drilling and Rig Crew Operations: Applied Case describes a practical part of Introduction to Offshore Drilling and Rig Crew Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore drilling and rig crew operations: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore drilling and rig crew operations: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore drilling and rig crew operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore drilling and rig crew operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore drilling and rig crew operations: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore drilling and rig crew operations: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore drilling and rig crew operations: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore drilling and rig crew operations: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore drilling and rig crew operations: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore drilling and rig crew operations: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore drilling and rig crew operations: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore drilling and rig crew operations: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore drilling and rig crew operations: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore drilling and rig crew operations: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Introduction to Offshore Drilling and Rig Crew Operations: Communication and Escalation

Learning objectives

- Explain introduction to offshore drilling and rig crew operations: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Drilling and Rig Crew Operations: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Drilling and Rig Crew Operations: Communication and Escalation describes a practical part of Introduction to Offshore Drilling and Rig Crew Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore drilling and rig crew operations: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore drilling and rig crew operations: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore drilling and rig crew operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore drilling and rig crew operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore drilling and rig crew operations: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore drilling and rig crew operations: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore drilling and rig crew operations: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore drilling and rig crew operations: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore drilling and rig crew operations: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore drilling and rig crew operations: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore drilling and rig crew operations: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore drilling and rig crew operations: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore drilling and rig crew operations: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore drilling and rig crew operations: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Introduction to Offshore Drilling and Rig Crew Operations: Knowledge Check

Learning objectives

- Explain introduction to offshore drilling and rig crew operations: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Drilling and Rig Crew Operations: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Drilling and Rig Crew Operations: Knowledge Check describes a practical part of Introduction to Offshore Drilling and Rig Crew Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore drilling and rig crew operations: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore drilling and rig crew operations: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore drilling and rig crew operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore drilling and rig crew operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore drilling and rig crew operations: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore drilling and rig crew operations: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore drilling and rig crew operations: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore drilling and rig crew operations: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore drilling and rig crew operations: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore drilling and rig crew operations: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore drilling and rig crew operations: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore drilling and rig crew operations: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore drilling and rig crew operations: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore drilling and rig crew operations: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Introduction to Offshore Drilling and Rig Crew Operations: Competence Review

Learning objectives

- Explain introduction to offshore drilling and rig crew operations: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Drilling and Rig Crew Operations: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Drilling and Rig Crew Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Drilling and Rig Crew Operations: Competence Review describes a practical part of Introduction to Offshore Drilling and Rig Crew Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore drilling and rig crew operations: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore drilling and rig crew operations: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore drilling and rig crew operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore drilling and rig crew operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore drilling and rig crew operations: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore drilling and rig crew operations: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore drilling and rig crew operations: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore drilling and rig crew operations: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore drilling and rig crew operations: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore drilling and rig crew operations: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore drilling and rig crew operations: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore drilling and rig crew operations: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore drilling and rig crew operations: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore drilling and rig crew operations: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-006 | Subsea Systems, FPSOs and Deepwater Development

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Subsea Systems, FPSOs and Deepwater Development, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Subsea Systems, FPSOs and Deepwater Development.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Deepwater development concept selection

Learning objectives

- Explain deepwater development concept selection, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Deepwater development concept selection
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Compare subsea tieback, standalone floating production and shore-linked concepts against reservoir, metocean, water depth, distance and product requirements. A concept is an integrated system of wells, facilities, export and support infrastructure. Show the interfaces before scoring alternatives.

Decision logic. Apply mandatory constraints before weighted scoring. Document weighting, uncertainty and options that fail a hard requirement. Lowest capital cost may increase operating risk or reduce recovery. Revisit selection when appraisal or market evidence changes.

Worked example. Concept A costs less initially but cannot accommodate the high gas case; Concept B has expansion capacity.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a concept matrix with technical, commercial, environmental and local-capability criteria.

Model answer guide. Reject infeasible options before ranking and include lifecycle cost, flexibility and uncertainty.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a concept matrix with technical, commercial, environmental and local-capability criteria.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of deepwater development concept selection?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about deepwater development concept selection?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about deepwater development concept selection be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating deepwater development concept selection?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in deepwater development concept selection?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning deepwater development concept selection?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for deepwater development concept selection. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on deepwater development concept selection contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about deepwater development concept selection?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in deepwater development concept selection?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Subsea trees and wellheads

Learning objectives

- Explain subsea trees and wellheads, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Subsea trees and wellheads
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. The wellhead supports well interfaces; the tree provides controlled flow paths and isolation functions. Distinguish production, annulus and intervention interfaces. Explain that equipment configuration depends on well design and operating requirements, not a universal diagram.

Decision logic. Selection considers pressure, temperature, fluid service, installation, control compatibility and intervention access. Track interface documents and qualification evidence. An equipment rating alone does not prove the installed system is suitable or verified.

Worked example. A replacement connector has adequate pressure rating but an incompatible mechanical interface.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional tree interface sheet and flag mismatches.

Model answer guide. Check mechanical, hydraulic, electrical, control and material compatibility; require approved verification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional tree interface sheet and flag mismatches.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of subsea trees and wellheads?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about subsea trees and wellheads?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about subsea trees and wellheads be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating subsea trees and wellheads?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in subsea trees and wellheads?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning subsea trees and wellheads?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for subsea trees and wellheads. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on subsea trees and wellheads contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about subsea trees and wellheads?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in subsea trees and wellheads?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Manifolds flowlines and risers

Learning objectives

- Explain manifolds flowlines and risers, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Manifolds flowlines and risers
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Manifolds collect and distribute flows; flowlines transport seabed fluids; risers bridge the seabed and floating facility. Distinguish production, injection and service lines. Show mechanical, thermal and hydraulic interfaces in one field layout.

Decision logic. Assess pressure drop, thermal loss, fatigue, seabed interaction and installation constraints together. Flowline diameter is a system tradeoff, not simply a maximum-flow choice. Routing must consider environmental and operational constraints and future inspection access.

Worked example. A shorter route crosses difficult seabed terrain, while a longer route reduces installation and inspection difficulty.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare two routing options and record the evidence needed for selection.

Model answer guide. Use lifecycle integrity, hydraulics, constructability, environment and access; do not select by length alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare two routing options and record the evidence needed for selection.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of manifolds flowlines and risers?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about manifolds flowlines and risers?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about manifolds flowlines and risers be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating manifolds flowlines and risers?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in manifolds flowlines and risers?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning manifolds flowlines and risers?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for manifolds flowlines and risers. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on manifolds flowlines and risers contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about manifolds flowlines and risers?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in manifolds flowlines and risers?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: FPSO processing storage and offloading

Learning objectives

- Explain fpso processing storage and offloading, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of FPSO processing storage and offloading
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. An FPSO receives production, separates fluids, treats streams, stores oil and transfers cargo to export vessels. Explain topsides, hull, marine systems and offloading interfaces. Storage capacity is different from processing capacity.

Decision logic. Link processing limits to reservoir fluid cases and marine availability. A delay in offloading can constrain production even if process equipment is healthy. Discuss integration between process safety, marine assurance, maintenance and cargo scheduling.

Worked example. A fictional FPSO processes 100,000 barrels/day and has 500,000 barrels of free storage, providing five days before storage fills at unchanged output.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate free-storage endurance and list mitigations requiring review.

Model answer guide. Five days under simplified assumptions; review offloading schedule, safe operating limits and controlled production planning.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate free-storage endurance and list mitigations requiring review.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fpso processing storage and offloading?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fpso processing storage and offloading?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fpso processing storage and offloading be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fpso processing storage and offloading?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fpso processing storage and offloading?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fpso processing storage and offloading?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fpso processing storage and offloading. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fpso processing storage and offloading contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fpso processing storage and offloading?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fpso processing storage and offloading?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Marine operations and station keeping

Learning objectives

- Explain marine operations and station keeping, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine operations and station keeping
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Floating facilities and vessels maintain position through mooring, dynamic positioning or combinations appropriate to their design. Marine operations depend on weather, equipment condition and personnel competence. Explain station-keeping failure consequences for risers, lines and transfer operations.

Decision logic. Operating windows are vessel- and task-specific. Review weather forecasts, redundancy, assurance and abort criteria before work. Do not use classroom numbers as vessel limits. Interface plans should define who can pause the operation and how changes are communicated.

Worked example. An operation remains within yesterday's forecast but the latest forecast deteriorates during the planned work window.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a go-or-defer briefing identifying information needed, authority and contingency.

Model answer guide. Use current metocean data, approved limits, equipment status and safe disengagement planning.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a go-or-defer briefing identifying information needed, authority and contingency.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine operations and station keeping?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine operations and station keeping?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine operations and station keeping be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine operations and station keeping?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine operations and station keeping?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine operations and station keeping?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine operations and station keeping. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine operations and station keeping contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine operations and station keeping?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine operations and station keeping?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Subsea Systems, FPSOs and Deepwater Development: Data and Performance

Learning objectives

- Explain subsea systems, fpsos and deepwater development: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Subsea Systems, FPSOs and Deepwater Development: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Subsea Systems, FPSOs and Deepwater Development: Data and Performance describes a practical part of Subsea Systems, FPSOs and Deepwater Development. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for subsea systems, fpsos and deepwater development: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans subsea systems, fpsos and deepwater development: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for subsea systems, fpsos and deepwater development: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for subsea systems, fpsos and deepwater development: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of subsea systems, fpsos and deepwater development: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about subsea systems, fpsos and deepwater development: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about subsea systems, fpsos and deepwater development: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating subsea systems, fpsos and deepwater development: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in subsea systems, fpsos and deepwater development: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning subsea systems, fpsos and deepwater development: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for subsea systems, fpsos and deepwater development: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on subsea systems, fpsos and deepwater development: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about subsea systems, fpsos and deepwater development: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in subsea systems, fpsos and deepwater development: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Subsea Systems, FPSOs and Deepwater Development: Applied Case

Learning objectives

- Explain subsea systems, fpsos and deepwater development: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Subsea Systems, FPSOs and Deepwater Development: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Subsea Systems, FPSOs and Deepwater Development: Applied Case describes a practical part of Subsea Systems, FPSOs and Deepwater Development. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for subsea systems, fpsos and deepwater development: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans subsea systems, fpsos and deepwater development: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for subsea systems, fpsos and deepwater development: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for subsea systems, fpsos and deepwater development: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of subsea systems, fpsos and deepwater development: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about subsea systems, fpsos and deepwater development: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about subsea systems, fpsos and deepwater development: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating subsea systems, fpsos and deepwater development: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in subsea systems, fpsos and deepwater development: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning subsea systems, fpsos and deepwater development: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for subsea systems, fpsos and deepwater development: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on subsea systems, fpsos and deepwater development: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about subsea systems, fpsos and deepwater development: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in subsea systems, fpsos and deepwater development: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Subsea Systems, FPSOs and Deepwater Development: Communication and Escalation

Learning objectives

- Explain subsea systems, fpsos and deepwater development: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Subsea Systems, FPSOs and Deepwater Development: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Subsea Systems, FPSOs and Deepwater Development: Communication and Escalation describes a practical part of Subsea Systems, FPSOs and Deepwater Development. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for subsea systems, fpsos and deepwater development: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans subsea systems, fpsos and deepwater development: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for subsea systems, fpsos and deepwater development: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for subsea systems, fpsos and deepwater development: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of subsea systems, fpsos and deepwater development: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about subsea systems, fpsos and deepwater development: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about subsea systems, fpsos and deepwater development: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating subsea systems, fpsos and deepwater development: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in subsea systems, fpsos and deepwater development: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning subsea systems, fpsos and deepwater development: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for subsea systems, fpsos and deepwater development: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on subsea systems, fpsos and deepwater development: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about subsea systems, fpsos and deepwater development: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in subsea systems, fpsos and deepwater development: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Subsea Systems, FPSOs and Deepwater Development: Knowledge Check

Learning objectives

- Explain subsea systems, fpsos and deepwater development: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Subsea Systems, FPSOs and Deepwater Development: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Subsea Systems, FPSOs and Deepwater Development: Knowledge Check describes a practical part of Subsea Systems, FPSOs and Deepwater Development. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for subsea systems, fpsos and deepwater development: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans subsea systems, fpsos and deepwater development: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for subsea systems, fpsos and deepwater development: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for subsea systems, fpsos and deepwater development: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of subsea systems, fpsos and deepwater development: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about subsea systems, fpsos and deepwater development: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about subsea systems, fpsos and deepwater development: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating subsea systems, fpsos and deepwater development: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in subsea systems, fpsos and deepwater development: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning subsea systems, fpsos and deepwater development: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for subsea systems, fpsos and deepwater development: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on subsea systems, fpsos and deepwater development: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about subsea systems, fpsos and deepwater development: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in subsea systems, fpsos and deepwater development: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Subsea Systems, FPSOs and Deepwater Development: Competence Review

Learning objectives

- Explain subsea systems, fpsos and deepwater development: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Subsea Systems, FPSOs and Deepwater Development: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Subsea Systems, FPSOs and Deepwater Development

Teaching notes

Teaching notes

Core explanation. Subsea Systems, FPSOs and Deepwater Development: Competence Review describes a practical part of Subsea Systems, FPSOs and Deepwater Development. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for subsea systems, fpsos and deepwater development: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans subsea systems, fpsos and deepwater development: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for subsea systems, fpsos and deepwater development: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for subsea systems, fpsos and deepwater development: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of subsea systems, fpsos and deepwater development: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about subsea systems, fpsos and deepwater development: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about subsea systems, fpsos and deepwater development: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating subsea systems, fpsos and deepwater development: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in subsea systems, fpsos and deepwater development: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning subsea systems, fpsos and deepwater development: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for subsea systems, fpsos and deepwater development: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on subsea systems, fpsos and deepwater development: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about subsea systems, fpsos and deepwater development: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in subsea systems, fpsos and deepwater development: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-007 | Offshore Safety, Permit to Work and SIMOPS Awareness

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Offshore Safety, Permit to Work and SIMOPS Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Offshore Safety, Permit to Work and SIMOPS Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Offshore hazards and safe working

Learning objectives

- Explain offshore hazards and safe working, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore hazards and safe working
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Hazards include moving machinery, hydrocarbons, pressure, electricity, weather, dropped objects and human exposure. Risk depends on likelihood and consequence in a defined task. Hazard recognition is the beginning of control, not permission to work.

Decision logic. Use elimination, substitution and engineered controls before relying only on procedures or PPE. Include manual handling and hazardous substances from the IMIST source themes. Train learners to stop and escalate unsafe conditions and remain within their authority.

Worked example. A walkway crosses a lifting zone. A helmet alone does not remove dropped-load exposure.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Model answer guide. Prefer segregation or changed routing over PPE alone; identify responsible verification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore hazards and safe working?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore hazards and safe working?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore hazards and safe working be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore hazards and safe working?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore hazards and safe working?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore hazards and safe working?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore hazards and safe working. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore hazards and safe working contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore hazards and safe working?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore hazards and safe working?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Risk assessment and uncertainty management

Learning objectives

- Explain risk assessment and uncertainty management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Risk assessment and uncertainty management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Define the activity and potential harm, identify hazards, evaluate existing controls, then decide further controls and ownership. A risk matrix supports prioritisation but does not prove a risk is tolerable. Include affected people and changing conditions.

Decision logic. Test whether controls are present and effective. Residual risk should be reassessed after control implementation, not merely after a promise. Escalate high-consequence uncertainty for competent review. Project risk also includes schedule, cost and opportunity effects.

Worked example. A permit lists a barrier that has not yet been installed. The claimed residual risk is premature.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Complete a risk register with cause, event, consequence, control, owner and verification.

Model answer guide. Keep hazard and consequence distinct and require evidence before taking control credit.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Complete a risk register with cause, event, consequence, control, owner and verification.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of risk assessment and uncertainty management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about risk assessment and uncertainty management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about risk assessment and uncertainty management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating risk assessment and uncertainty management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in risk assessment and uncertainty management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning risk assessment and uncertainty management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for risk assessment and uncertainty management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on risk assessment and uncertainty management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about risk assessment and uncertainty management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in risk assessment and uncertainty management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review two fictional permits and identify interface conflicts and suspension triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of permit to work isolation and simops?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about permit to work isolation and simops?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about permit to work isolation and simops be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating permit to work isolation and simops?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in permit to work isolation and simops?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning permit to work isolation and simops?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for permit to work isolation and simops. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on permit to work isolation and simops contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about permit to work isolation and simops?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in permit to work isolation and simops?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Process safety fundamentals

Learning objectives

- Explain process safety fundamentals, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Process safety fundamentals
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Process safety prevents major loss-of-containment and energy-release events. Personal injury rates do not measure every major-accident risk. Explain hazard, initiating event, preventive barriers, mitigative barriers and consequences using a bowtie.

Decision logic. Assess barrier performance standards, degradation and independent assurance. HAZID, HAZOP and other reviews have different purposes and need competent facilitation. Do not call a classroom checklist a certified safety study. Track temporary changes and overdue critical actions.

Worked example. An asset reports no slips but has several overdue safety-critical tests; major-accident assurance remains weak.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a bowtie for a fictional separator loss of containment.

Model answer guide. Separate prevention and mitigation and assign barrier evidence, owner and degradation response.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a bowtie for a fictional separator loss of containment.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of process safety fundamentals?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about process safety fundamentals?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about process safety fundamentals be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating process safety fundamentals?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in process safety fundamentals?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning process safety fundamentals?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for process safety fundamentals. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on process safety fundamentals contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about process safety fundamentals?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in process safety fundamentals?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Offshore Safety, Permit to Work and SIMOPS Awareness: Work Planning

Learning objectives

- Explain offshore safety, permit to work and simops awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Safety, Permit to Work and SIMOPS Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Safety, Permit to Work and SIMOPS Awareness: Work Planning describes a practical part of Offshore Safety, Permit to Work and SIMOPS Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore safety, permit to work and simops awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore safety, permit to work and simops awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore safety, permit to work and simops awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore safety, permit to work and simops awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore safety, permit to work and simops awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore safety, permit to work and simops awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore safety, permit to work and simops awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore safety, permit to work and simops awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore safety, permit to work and simops awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore safety, permit to work and simops awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore safety, permit to work and simops awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore safety, permit to work and simops awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore safety, permit to work and simops awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore safety, permit to work and simops awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Offshore Safety, Permit to Work and SIMOPS Awareness: Data and Performance

Learning objectives

- Explain offshore safety, permit to work and simops awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Safety, Permit to Work and SIMOPS Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Safety, Permit to Work and SIMOPS Awareness: Data and Performance describes a practical part of Offshore Safety, Permit to Work and SIMOPS Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore safety, permit to work and simops awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore safety, permit to work and simops awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore safety, permit to work and simops awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore safety, permit to work and simops awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore safety, permit to work and simops awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore safety, permit to work and simops awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore safety, permit to work and simops awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore safety, permit to work and simops awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore safety, permit to work and simops awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore safety, permit to work and simops awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore safety, permit to work and simops awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore safety, permit to work and simops awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore safety, permit to work and simops awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore safety, permit to work and simops awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Offshore Safety, Permit to Work and SIMOPS Awareness: Applied Case

Learning objectives

- Explain offshore safety, permit to work and simops awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Safety, Permit to Work and SIMOPS Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Safety, Permit to Work and SIMOPS Awareness: Applied Case describes a practical part of Offshore Safety, Permit to Work and SIMOPS Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore safety, permit to work and simops awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore safety, permit to work and simops awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore safety, permit to work and simops awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore safety, permit to work and simops awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore safety, permit to work and simops awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore safety, permit to work and simops awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore safety, permit to work and simops awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore safety, permit to work and simops awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore safety, permit to work and simops awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore safety, permit to work and simops awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore safety, permit to work and simops awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore safety, permit to work and simops awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore safety, permit to work and simops awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore safety, permit to work and simops awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Offshore Safety, Permit to Work and SIMOPS Awareness: Communication and Escalation

Learning objectives

- Explain offshore safety, permit to work and simops awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Safety, Permit to Work and SIMOPS Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Safety, Permit to Work and SIMOPS Awareness: Communication and Escalation describes a practical part of Offshore Safety, Permit to Work and SIMOPS Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore safety, permit to work and simops awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore safety, permit to work and simops awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore safety, permit to work and simops awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore safety, permit to work and simops awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore safety, permit to work and simops awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore safety, permit to work and simops awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore safety, permit to work and simops awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore safety, permit to work and simops awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore safety, permit to work and simops awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore safety, permit to work and simops awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore safety, permit to work and simops awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore safety, permit to work and simops awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore safety, permit to work and simops awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore safety, permit to work and simops awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Offshore Safety, Permit to Work and SIMOPS Awareness: Knowledge Check

Learning objectives

- Explain offshore safety, permit to work and simops awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Safety, Permit to Work and SIMOPS Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Safety, Permit to Work and SIMOPS Awareness: Knowledge Check describes a practical part of Offshore Safety, Permit to Work and SIMOPS Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore safety, permit to work and simops awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore safety, permit to work and simops awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore safety, permit to work and simops awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore safety, permit to work and simops awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore safety, permit to work and simops awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore safety, permit to work and simops awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore safety, permit to work and simops awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore safety, permit to work and simops awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore safety, permit to work and simops awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore safety, permit to work and simops awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore safety, permit to work and simops awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore safety, permit to work and simops awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore safety, permit to work and simops awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore safety, permit to work and simops awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Offshore Safety, Permit to Work and SIMOPS Awareness: Competence Review

Learning objectives

- Explain offshore safety, permit to work and simops awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Safety, Permit to Work and SIMOPS Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Safety, Permit to Work and SIMOPS Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Safety, Permit to Work and SIMOPS Awareness: Competence Review describes a practical part of Offshore Safety, Permit to Work and SIMOPS Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore safety, permit to work and simops awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore safety, permit to work and simops awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore safety, permit to work and simops awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore safety, permit to work and simops awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore safety, permit to work and simops awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore safety, permit to work and simops awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore safety, permit to work and simops awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore safety, permit to work and simops awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore safety, permit to work and simops awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore safety, permit to work and simops awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore safety, permit to work and simops awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore safety, permit to work and simops awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore safety, permit to work and simops awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore safety, permit to work and simops awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-008 | Firewatching, Gas Testing and Confined-Space Awareness

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Firewatching, Gas Testing and Confined-Space Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Firewatching, Gas Testing and Confined-Space Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Fire prevention detection and firewatch

Learning objectives

- Explain fire prevention detection and firewatch, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Fire prevention detection and firewatch
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Fire needs fuel, oxidant and ignition conditions. Prevention separates these; detection and response reduce consequences. A firewatch role monitors defined work and escalation requirements but does not replace isolation or gas-control measures.

Decision logic. Teach equipment recognition and alarm reporting with site-specific authority limits. Extinguisher selection and use require appropriate practical training and safe conditions. No learner should enter smoke or fight a fire beyond training and authority. Emergency arrangements take priority.

Worked example. A fictional firewatch observes a changed condition outside the permit boundary. Work is stopped and the supervisor informed.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify fire hazards in a mock hot-work briefing and state escalation triggers.

Model answer guide. Include combustible exposure, ignition sources, access, communications and changed conditions; no improvised firefighting.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify fire hazards in a mock hot-work briefing and state escalation triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fire prevention detection and firewatch?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fire prevention detection and firewatch?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fire prevention detection and firewatch be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fire prevention detection and firewatch?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fire prevention detection and firewatch?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fire prevention detection and firewatch?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fire prevention detection and firewatch. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fire prevention detection and firewatch contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fire prevention detection and firewatch?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fire prevention detection and firewatch?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Atmospheric testing principles

Learning objectives

- Explain atmospheric testing principles, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Atmospheric testing principles
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Atmospheric testing considers oxygen, flammable and toxic hazards with instruments suitable for the task. Calibration, functional checks, sampling location, response time and sensor limitations affect validity. A reading is evidence at a place and time, not a permanent guarantee.

Decision logic. Use manufacturer-approved training and site procedures for actual instrument operation and acceptance limits. Teach why an unsuitable or failed sensor makes a reading unreliable. Do not prescribe entry thresholds or authorise testing competence through online questions alone.

Worked example. A detector displays zero but its required functional check failed. Zero cannot be trusted as proof of safe atmosphere.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Evaluate fictional detector records and decide whether evidence is fit for use.

Model answer guide. Reject unreliable evidence, withdraw the instrument according to procedure and escalate for approved replacement or review.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Evaluate fictional detector records and decide whether evidence is fit for use.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of atmospheric testing principles?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about atmospheric testing principles?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about atmospheric testing principles be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating atmospheric testing principles?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in atmospheric testing principles?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning atmospheric testing principles?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for atmospheric testing principles. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on atmospheric testing principles contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about atmospheric testing principles?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in atmospheric testing principles?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Confined space awareness

Learning objectives

- Explain confined space awareness, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Confined space awareness
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Confined spaces may contain hazardous atmospheres, engulfment or difficult escape conditions. Recognition must include the task and changing environment, not just physical size. Avoid entry where possible and plan authorised work and rescue when entry is necessary.

Decision logic. A permit, testing and ventilation are parts of a broader system including isolation, competence, communication and rescue capability. Unplanned rescue attempts can create additional casualties. This awareness course does not qualify entrants, attendants or rescuers.

Worked example. A worker collapses inside a tank. An untrained colleague must raise the alarm rather than enter impulsively.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify missing controls in a fictional confined-space plan without entering any space.

Model answer guide. Require authorised assessment, isolation, atmospheric assurance, communications and competent rescue arrangements.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify missing controls in a fictional confined-space plan without entering any space.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of confined space awareness?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about confined space awareness?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about confined space awareness be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating confined space awareness?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in confined space awareness?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning confined space awareness?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for confined space awareness. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on confined space awareness contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about confined space awareness?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in confined space awareness?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Emergency preparedness and command

Learning objectives

- Explain emergency preparedness and command, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Emergency preparedness and command
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Emergency planning identifies credible scenarios, warning, command, communications, muster, evacuation, medical support and external interfaces. Responsibilities and fallback communications should be understood before an event. Awareness differs from emergency-team qualification.

Decision logic. Use tabletop exercises with timed injects, observer records and debrief actions. Test loss of communications or unavailable resources. Never simulate an actual distress call or activate real emergency equipment without authorised arrangements.

Worked example. A fictional offshore incident interrupts the primary communication link during a weather restriction.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Run a tabletop with incident controller, operations, logistics and communications roles.

Model answer guide. Prioritise people, establish command, verify information, use planned backup channels and document decisions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Run a tabletop with incident controller, operations, logistics and communications roles.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of emergency preparedness and command?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about emergency preparedness and command?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about emergency preparedness and command be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating emergency preparedness and command?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in emergency preparedness and command?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning emergency preparedness and command?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for emergency preparedness and command. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on emergency preparedness and command contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about emergency preparedness and command?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in emergency preparedness and command?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Firewatching, Gas Testing and Confined-Space Awareness: Work Planning

Learning objectives

- Explain firewatching, gas testing and confined-space awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Firewatching, Gas Testing and Confined-Space Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Firewatching, Gas Testing and Confined-Space Awareness: Work Planning describes a practical part of Firewatching, Gas Testing and Confined-Space Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for firewatching, gas testing and confined-space awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans firewatching, gas testing and confined-space awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for firewatching, gas testing and confined-space awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for firewatching, gas testing and confined-space awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of firewatching, gas testing and confined-space awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about firewatching, gas testing and confined-space awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about firewatching, gas testing and confined-space awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating firewatching, gas testing and confined-space awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in firewatching, gas testing and confined-space awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning firewatching, gas testing and confined-space awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for firewatching, gas testing and confined-space awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on firewatching, gas testing and confined-space awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about firewatching, gas testing and confined-space awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in firewatching, gas testing and confined-space awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Firewatching, Gas Testing and Confined-Space Awareness: Data and Performance

Learning objectives

- Explain firewatching, gas testing and confined-space awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Firewatching, Gas Testing and Confined-Space Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Firewatching, Gas Testing and Confined-Space Awareness: Data and Performance describes a practical part of Firewatching, Gas Testing and Confined-Space Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for firewatching, gas testing and confined-space awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans firewatching, gas testing and confined-space awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for firewatching, gas testing and confined-space awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for firewatching, gas testing and confined-space awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of firewatching, gas testing and confined-space awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about firewatching, gas testing and confined-space awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about firewatching, gas testing and confined-space awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating firewatching, gas testing and confined-space awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in firewatching, gas testing and confined-space awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning firewatching, gas testing and confined-space awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for firewatching, gas testing and confined-space awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on firewatching, gas testing and confined-space awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about firewatching, gas testing and confined-space awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in firewatching, gas testing and confined-space awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Firewatching, Gas Testing and Confined-Space Awareness: Applied Case

Learning objectives

- Explain firewatching, gas testing and confined-space awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Firewatching, Gas Testing and Confined-Space Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Firewatching, Gas Testing and Confined-Space Awareness: Applied Case describes a practical part of Firewatching, Gas Testing and Confined-Space Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for firewatching, gas testing and confined-space awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans firewatching, gas testing and confined-space awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for firewatching, gas testing and confined-space awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for firewatching, gas testing and confined-space awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of firewatching, gas testing and confined-space awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about firewatching, gas testing and confined-space awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about firewatching, gas testing and confined-space awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating firewatching, gas testing and confined-space awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in firewatching, gas testing and confined-space awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning firewatching, gas testing and confined-space awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for firewatching, gas testing and confined-space awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on firewatching, gas testing and confined-space awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about firewatching, gas testing and confined-space awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in firewatching, gas testing and confined-space awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Firewatching, Gas Testing and Confined-Space Awareness: Communication and Escalation

Learning objectives

- Explain firewatching, gas testing and confined-space awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Firewatching, Gas Testing and Confined-Space Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Firewatching, Gas Testing and Confined-Space Awareness: Communication and Escalation describes a practical part of Firewatching, Gas Testing and Confined-Space Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for firewatching, gas testing and confined-space awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans firewatching, gas testing and confined-space awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for firewatching, gas testing and confined-space awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for firewatching, gas testing and confined-space awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of firewatching, gas testing and confined-space awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about firewatching, gas testing and confined-space awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about firewatching, gas testing and confined-space awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating firewatching, gas testing and confined-space awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in firewatching, gas testing and confined-space awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning firewatching, gas testing and confined-space awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for firewatching, gas testing and confined-space awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on firewatching, gas testing and confined-space awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about firewatching, gas testing and confined-space awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in firewatching, gas testing and confined-space awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Firewatching, Gas Testing and Confined-Space Awareness: Knowledge Check

Learning objectives

- Explain firewatching, gas testing and confined-space awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Firewatching, Gas Testing and Confined-Space Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Firewatching, Gas Testing and Confined-Space Awareness: Knowledge Check describes a practical part of Firewatching, Gas Testing and Confined-Space Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for firewatching, gas testing and confined-space awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans firewatching, gas testing and confined-space awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for firewatching, gas testing and confined-space awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for firewatching, gas testing and confined-space awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of firewatching, gas testing and confined-space awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about firewatching, gas testing and confined-space awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about firewatching, gas testing and confined-space awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating firewatching, gas testing and confined-space awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in firewatching, gas testing and confined-space awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning firewatching, gas testing and confined-space awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for firewatching, gas testing and confined-space awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on firewatching, gas testing and confined-space awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about firewatching, gas testing and confined-space awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in firewatching, gas testing and confined-space awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Firewatching, Gas Testing and Confined-Space Awareness: Competence Review

Learning objectives

- Explain firewatching, gas testing and confined-space awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Firewatching, Gas Testing and Confined-Space Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Firewatching, Gas Testing and Confined-Space Awareness

Teaching notes

Teaching notes

Core explanation. Firewatching, Gas Testing and Confined-Space Awareness: Competence Review describes a practical part of Firewatching, Gas Testing and Confined-Space Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for firewatching, gas testing and confined-space awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans firewatching, gas testing and confined-space awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for firewatching, gas testing and confined-space awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for firewatching, gas testing and confined-space awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of firewatching, gas testing and confined-space awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about firewatching, gas testing and confined-space awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about firewatching, gas testing and confined-space awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating firewatching, gas testing and confined-space awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in firewatching, gas testing and confined-space awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning firewatching, gas testing and confined-space awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for firewatching, gas testing and confined-space awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on firewatching, gas testing and confined-space awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about firewatching, gas testing and confined-space awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in firewatching, gas testing and confined-space awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-009 | Rigging, Lifting and Banksman Awareness

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Rigging, Lifting and Banksman Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Rigging, Lifting and Banksman Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Rigging, Lifting and Banksman Awareness: Core Concepts

Learning objectives

- Explain rigging, lifting and banksman awareness: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Core Concepts describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: core concepts. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: core concepts while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: core concepts?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: core concepts?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: core concepts be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: core concepts?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: core concepts?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: core concepts?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: core concepts. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: core concepts contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: core concepts?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: core concepts?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Rigging, Lifting and Banksman Awareness: Risk Controls

Learning objectives

- Explain rigging, lifting and banksman awareness: risk controls, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Risk Controls
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Risk Controls describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: risk controls. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: risk controls while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: risk controls?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: risk controls?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: risk controls be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: risk controls?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: risk controls?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: risk controls?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: risk controls. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: risk controls contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: risk controls?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: risk controls?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review two fictional permits and identify interface conflicts and suspension triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of permit to work isolation and simops?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about permit to work isolation and simops?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about permit to work isolation and simops be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating permit to work isolation and simops?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in permit to work isolation and simops?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning permit to work isolation and simops?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for permit to work isolation and simops. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on permit to work isolation and simops contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about permit to work isolation and simops?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in permit to work isolation and simops?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Human factors and safe teamwork

Learning objectives

- Explain human factors and safe teamwork, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Human factors and safe teamwork
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Human performance is influenced by fatigue, workload, design, communication and organisational pressure. Errors are not explained adequately by blaming an individual. Teach clear handover, challenge, confirmation and usable procedures.

Decision logic. Identify conditions that make error likely and improve the system. A worker should be able to raise concerns without retaliation. Discuss language and comprehension checks, especially where teams have different experience levels. Avoid presenting awareness as immunity from error.

Worked example. A night-shift handover omits an isolation limitation because both workers assume the other knows.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Redesign the handover and role-play a closed-loop confirmation.

Model answer guide. Include critical status, restrictions, pending actions and acknowledgement, supported by a usable record.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Redesign the handover and role-play a closed-loop confirmation.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of human factors and safe teamwork?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about human factors and safe teamwork?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about human factors and safe teamwork be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating human factors and safe teamwork?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in human factors and safe teamwork?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning human factors and safe teamwork?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for human factors and safe teamwork. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on human factors and safe teamwork contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about human factors and safe teamwork?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in human factors and safe teamwork?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Rigging, Lifting and Banksman Awareness: Work Planning

Learning objectives

- Explain rigging, lifting and banksman awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Work Planning describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Rigging, Lifting and Banksman Awareness: Data and Performance

Learning objectives

- Explain rigging, lifting and banksman awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Data and Performance describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Rigging, Lifting and Banksman Awareness: Applied Case

Learning objectives

- Explain rigging, lifting and banksman awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Applied Case describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Rigging, Lifting and Banksman Awareness: Communication and Escalation

Learning objectives

- Explain rigging, lifting and banksman awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Communication and Escalation describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Rigging, Lifting and Banksman Awareness: Knowledge Check

Learning objectives

- Explain rigging, lifting and banksman awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Knowledge Check describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Rigging, Lifting and Banksman Awareness: Competence Review

Learning objectives

- Explain rigging, lifting and banksman awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Rigging, Lifting and Banksman Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Rigging, Lifting and Banksman Awareness

Teaching notes

Teaching notes

Core explanation. Rigging, Lifting and Banksman Awareness: Competence Review describes a practical part of Rigging, Lifting and Banksman Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rigging, lifting and banksman awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rigging, lifting and banksman awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rigging, lifting and banksman awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rigging, lifting and banksman awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rigging, lifting and banksman awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rigging, lifting and banksman awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rigging, lifting and banksman awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rigging, lifting and banksman awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rigging, lifting and banksman awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rigging, lifting and banksman awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rigging, lifting and banksman awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rigging, lifting and banksman awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rigging, lifting and banksman awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rigging, lifting and banksman awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-010 | Marine Logistics, Ports and Offshore Supply Bases

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Marine Logistics, Ports and Offshore Supply Bases, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Marine Logistics, Ports and Offshore Supply Bases.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Offshore supply base operations

Learning objectives

- Explain offshore supply base operations, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore supply base operations
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. A supply base connects procurement, warehousing, vessel movements and offshore demand. Explain receiving, inspection, storage, picking, packing, manifesting and dispatch. Errors at these interfaces can delay work or create safety risks offshore.

Decision logic. Plan around vessel capacity, weather, priorities and return logistics. Maintain segregation, traceability and quality holds. A fast dispatch is unsuccessful if cargo is wrong or unusable. Use synthetic manifests and no actual customs declarations.

Worked example. A spare is dispatched urgently but lacks the required preservation and identification.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Trace the spare from purchase request to offshore receipt and identify control points.

Model answer guide. Include identity, condition, documentation, packing, manifest and receiving confirmation.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Trace the spare from purchase request to offshore receipt and identify control points.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore supply base operations?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore supply base operations?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore supply base operations be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore supply base operations?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore supply base operations?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore supply base operations?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore supply base operations. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore supply base operations contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore supply base operations?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore supply base operations?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Marine aviation and offshore logistics

Learning objectives

- Explain marine aviation and offshore logistics, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine aviation and offshore logistics
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine and aviation logistics move people and materials through different capacity, weather and regulatory constraints. Explain planning, manifests, interfaces and contingency arrangements. Passenger and cargo operations require appropriate specialist authorisation.

Decision logic. Evaluate reliability and total service needs, not only transport price. Emergency arrangements, dangerous goods and communications affect planning. Do not infer STCW, aviation or offshore survival certification from this course. Real limits and booking approvals remain with authorised operators.

Worked example. A fictional weather delay blocks a planned crew change and critical spare delivery.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Develop a contingency plan that protects personnel welfare and operating limits.

Model answer guide. Include accommodation, revised schedules, priority cargo, communications and approved alternatives.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Develop a contingency plan that protects personnel welfare and operating limits.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine aviation and offshore logistics?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine aviation and offshore logistics?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine aviation and offshore logistics be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine aviation and offshore logistics?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine aviation and offshore logistics?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine aviation and offshore logistics?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine aviation and offshore logistics. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine aviation and offshore logistics contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine aviation and offshore logistics?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine aviation and offshore logistics?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Warehouse and inventory control

Learning objectives

- Explain warehouse and inventory control, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Warehouse and inventory control
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Inventory control balances service availability, cost, condition and obsolescence. Explain stock codes, locations, cycle counts, reorder logic and preservation. Recorded quantity may differ from usable quantity when items are damaged or uncertified.

Decision logic. Use demand and lead-time assumptions transparently. Distinguish safety stock from unplanned surplus. Critical spares require failure-consequence review, not just demand averages. Investigate count differences rather than silently adjusting the system.

Worked example. Average demand is 2 items/week and replenishment takes 3 weeks; basic lead-time demand is 6 items before safety stock.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the same quantity at 5-week lead time and discuss uncertainty.

Model answer guide. Ten items before safety stock; variability and criticality influence any additional holding.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the same quantity at 5-week lead time and discuss uncertainty.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of warehouse and inventory control?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about warehouse and inventory control?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about warehouse and inventory control be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating warehouse and inventory control?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in warehouse and inventory control?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning warehouse and inventory control?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for warehouse and inventory control. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on warehouse and inventory control contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about warehouse and inventory control?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in warehouse and inventory control?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Dangerous goods and marine cargo

Learning objectives

- Explain dangerous goods and marine cargo, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Dangerous goods and marine cargo
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Dangerous-goods controls depend on substance, quantity, packaging, transport mode and role. Classification, segregation, marking and documentation require current authoritative rules. Awareness is distinct from authorisation to prepare or accept shipments.

Decision logic. Use mock documents and inert training items. Never assign actual classification or pack live dangerous goods from this handout. Damaged or uncertain cargo should be held and escalated. Air, sea and road requirements are not interchangeable.

Worked example. A fictional battery shipment is offered as general cargo without enough product or condition information.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify missing information and route the case for qualified review.

Model answer guide. Hold processing, verify battery details and applicable mode-specific requirements, and document the review.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify missing information and route the case for qualified review.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of dangerous goods and marine cargo?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about dangerous goods and marine cargo?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about dangerous goods and marine cargo be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating dangerous goods and marine cargo?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in dangerous goods and marine cargo?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning dangerous goods and marine cargo?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for dangerous goods and marine cargo. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on dangerous goods and marine cargo contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about dangerous goods and marine cargo?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in dangerous goods and marine cargo?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Marine Logistics, Ports and Offshore Supply Bases: Work Planning

Learning objectives

- Explain marine logistics, ports and offshore supply bases: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Logistics, Ports and Offshore Supply Bases: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine Logistics, Ports and Offshore Supply Bases: Work Planning describes a practical part of Marine Logistics, Ports and Offshore Supply Bases. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine logistics, ports and offshore supply bases: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine logistics, ports and offshore supply bases: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine logistics, ports and offshore supply bases: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine logistics, ports and offshore supply bases: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine logistics, ports and offshore supply bases: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine logistics, ports and offshore supply bases: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine logistics, ports and offshore supply bases: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine logistics, ports and offshore supply bases: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine logistics, ports and offshore supply bases: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine logistics, ports and offshore supply bases: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine logistics, ports and offshore supply bases: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine logistics, ports and offshore supply bases: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine logistics, ports and offshore supply bases: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine logistics, ports and offshore supply bases: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Marine Logistics, Ports and Offshore Supply Bases: Data and Performance

Learning objectives

- Explain marine logistics, ports and offshore supply bases: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Logistics, Ports and Offshore Supply Bases: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine Logistics, Ports and Offshore Supply Bases: Data and Performance describes a practical part of Marine Logistics, Ports and Offshore Supply Bases. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine logistics, ports and offshore supply bases: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine logistics, ports and offshore supply bases: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine logistics, ports and offshore supply bases: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine logistics, ports and offshore supply bases: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine logistics, ports and offshore supply bases: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine logistics, ports and offshore supply bases: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine logistics, ports and offshore supply bases: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine logistics, ports and offshore supply bases: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine logistics, ports and offshore supply bases: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine logistics, ports and offshore supply bases: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine logistics, ports and offshore supply bases: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine logistics, ports and offshore supply bases: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine logistics, ports and offshore supply bases: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine logistics, ports and offshore supply bases: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Marine Logistics, Ports and Offshore Supply Bases: Applied Case

Learning objectives

- Explain marine logistics, ports and offshore supply bases: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Logistics, Ports and Offshore Supply Bases: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine Logistics, Ports and Offshore Supply Bases: Applied Case describes a practical part of Marine Logistics, Ports and Offshore Supply Bases. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine logistics, ports and offshore supply bases: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine logistics, ports and offshore supply bases: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine logistics, ports and offshore supply bases: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine logistics, ports and offshore supply bases: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine logistics, ports and offshore supply bases: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine logistics, ports and offshore supply bases: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine logistics, ports and offshore supply bases: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine logistics, ports and offshore supply bases: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine logistics, ports and offshore supply bases: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine logistics, ports and offshore supply bases: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine logistics, ports and offshore supply bases: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine logistics, ports and offshore supply bases: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine logistics, ports and offshore supply bases: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine logistics, ports and offshore supply bases: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Marine Logistics, Ports and Offshore Supply Bases: Communication and Escalation

Learning objectives

- Explain marine logistics, ports and offshore supply bases: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Logistics, Ports and Offshore Supply Bases: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine Logistics, Ports and Offshore Supply Bases: Communication and Escalation describes a practical part of Marine Logistics, Ports and Offshore Supply Bases. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine logistics, ports and offshore supply bases: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine logistics, ports and offshore supply bases: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine logistics, ports and offshore supply bases: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine logistics, ports and offshore supply bases: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine logistics, ports and offshore supply bases: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine logistics, ports and offshore supply bases: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine logistics, ports and offshore supply bases: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine logistics, ports and offshore supply bases: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine logistics, ports and offshore supply bases: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine logistics, ports and offshore supply bases: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine logistics, ports and offshore supply bases: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine logistics, ports and offshore supply bases: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine logistics, ports and offshore supply bases: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine logistics, ports and offshore supply bases: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Marine Logistics, Ports and Offshore Supply Bases: Knowledge Check

Learning objectives

- Explain marine logistics, ports and offshore supply bases: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Logistics, Ports and Offshore Supply Bases: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine Logistics, Ports and Offshore Supply Bases: Knowledge Check describes a practical part of Marine Logistics, Ports and Offshore Supply Bases. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine logistics, ports and offshore supply bases: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine logistics, ports and offshore supply bases: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine logistics, ports and offshore supply bases: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine logistics, ports and offshore supply bases: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine logistics, ports and offshore supply bases: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine logistics, ports and offshore supply bases: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine logistics, ports and offshore supply bases: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine logistics, ports and offshore supply bases: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine logistics, ports and offshore supply bases: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine logistics, ports and offshore supply bases: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine logistics, ports and offshore supply bases: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine logistics, ports and offshore supply bases: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine logistics, ports and offshore supply bases: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine logistics, ports and offshore supply bases: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Marine Logistics, Ports and Offshore Supply Bases: Competence Review

Learning objectives

- Explain marine logistics, ports and offshore supply bases: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Logistics, Ports and Offshore Supply Bases: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Logistics, Ports and Offshore Supply Bases

Teaching notes

Teaching notes

Core explanation. Marine Logistics, Ports and Offshore Supply Bases: Competence Review describes a practical part of Marine Logistics, Ports and Offshore Supply Bases. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine logistics, ports and offshore supply bases: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine logistics, ports and offshore supply bases: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine logistics, ports and offshore supply bases: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine logistics, ports and offshore supply bases: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine logistics, ports and offshore supply bases: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine logistics, ports and offshore supply bases: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine logistics, ports and offshore supply bases: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine logistics, ports and offshore supply bases: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine logistics, ports and offshore supply bases: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine logistics, ports and offshore supply bases: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine logistics, ports and offshore supply bases: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine logistics, ports and offshore supply bases: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine logistics, ports and offshore supply bases: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine logistics, ports and offshore supply bases: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-011 | ROV and Underwater Robotics Awareness

Level: SC | Duration: 1 days | Audience: Learners appropriate to the stated programme level

1 days SC programme focused on ROV and Underwater Robotics Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for ROV and Underwater Robotics Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: ROV and Underwater Robotics Awareness: Core Concepts

Learning objectives

- Explain rov and underwater robotics awareness: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Core Concepts describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: core concepts. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: core concepts while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: core concepts?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: core concepts?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: core concepts be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: core concepts?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: core concepts?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: core concepts?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: core concepts. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: core concepts contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: core concepts?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: core concepts?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Umbilicals and subsea control systems

Learning objectives

- Explain umbilicals and subsea control systems, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Umbilicals and subsea control systems
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. Umbilicals transmit combinations of power, communications, hydraulic service and chemicals. Subsea controls command and monitor equipment. Use a signal-and-energy diagram to separate commands, feedback and physical actuation.

Decision logic. Control philosophy must address loss of power, communications and hydraulic supply, plus the intended safe response. Check compatibility and redundancy across surface and subsea equipment. A command acknowledgement does not necessarily prove final valve position.

Worked example. A control command is received, but independent position feedback disagrees. Investigate rather than assume successful actuation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Trace one command path and identify three failure points and their indication.

Model answer guide. Include surface control, communication, power or hydraulic supply and feedback; distinguish received command from achieved state.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Trace one command path and identify three failure points and their indication.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of umbilicals and subsea control systems?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about umbilicals and subsea control systems?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about umbilicals and subsea control systems be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating umbilicals and subsea control systems?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in umbilicals and subsea control systems?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning umbilicals and subsea control systems?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for umbilicals and subsea control systems. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on umbilicals and subsea control systems contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about umbilicals and subsea control systems?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in umbilicals and subsea control systems?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Inspection planning and technologies

Learning objectives

- Explain inspection planning and technologies, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Inspection planning and technologies
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. Inspection seeks evidence of condition and degradation using methods fit for the expected damage. Coverage, access, resolution and operator competence affect confidence. Distinguish visual survey, thickness measurement and detailed examination.

Decision logic. Start with the question being answered, then select method and locations. A clean report from limited coverage does not prove the whole asset is defect-free. Record limitations, traceability, findings and required engineering disposition.

Worked example. An external visual survey cannot establish internal wall thickness beneath insulation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Design an inspection brief with objective, coverage, method and reporting limits.

Model answer guide. Match technique to mechanism and state what cannot be concluded.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Design an inspection brief with objective, coverage, method and reporting limits.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of inspection planning and technologies?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about inspection planning and technologies?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about inspection planning and technologies be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating inspection planning and technologies?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in inspection planning and technologies?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning inspection planning and technologies?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for inspection planning and technologies. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on inspection planning and technologies contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about inspection planning and technologies?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in inspection planning and technologies?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: ROV and Underwater Robotics Awareness: Evidence and Decision Gates

Learning objectives

- Explain rov and underwater robotics awareness: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Evidence and Decision Gates describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: ROV and Underwater Robotics Awareness: Work Planning

Learning objectives

- Explain rov and underwater robotics awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Work Planning describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: ROV and Underwater Robotics Awareness: Data and Performance

Learning objectives

- Explain rov and underwater robotics awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Data and Performance describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: ROV and Underwater Robotics Awareness: Applied Case

Learning objectives

- Explain rov and underwater robotics awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Applied Case describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: ROV and Underwater Robotics Awareness: Communication and Escalation

Learning objectives

- Explain rov and underwater robotics awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Communication and Escalation describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: ROV and Underwater Robotics Awareness: Knowledge Check

Learning objectives

- Explain rov and underwater robotics awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Knowledge Check describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: ROV and Underwater Robotics Awareness: Competence Review

Learning objectives

- Explain rov and underwater robotics awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of ROV and Underwater Robotics Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: ROV and Underwater Robotics Awareness

Teaching notes

Teaching notes

Core explanation. ROV and Underwater Robotics Awareness: Competence Review describes a practical part of ROV and Underwater Robotics Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for rov and underwater robotics awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans rov and underwater robotics awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for rov and underwater robotics awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for rov and underwater robotics awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of rov and underwater robotics awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about rov and underwater robotics awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about rov and underwater robotics awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating rov and underwater robotics awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in rov and underwater robotics awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning rov and underwater robotics awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for rov and underwater robotics awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on rov and underwater robotics awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about rov and underwater robotics awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in rov and underwater robotics awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-012 | Crude-Oil Quality, Refining and Product Markets

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Crude-Oil Quality, Refining and Product Markets, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Crude-Oil Quality, Refining and Product Markets.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Crude oil quality and assay interpretation

Learning objectives

- Explain crude oil quality and assay interpretation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude oil quality and assay interpretation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude properties include density, sulfur, acidity, metals, salt, water and distillation behaviour. API gravity is a density scale, not a complete quality grade. Explain how crude assay and sampling representativeness affect refinery fit and valuation.

Decision logic. A light crude can still present processing or materials challenges. Compare whole-crude properties with fraction yields and contaminants. Distinguish a laboratory result, a contractual specification and a refinery's acceptable feed envelope.

Worked example. Two hypothetical crudes have similar API gravity but very different sulfur and metals contents.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare the two fictional assays and list additional data needed for refinery selection.

Model answer guide. Include contaminant management, fraction yields, blending and sampling quality; avoid ranking by API gravity alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare the two fictional assays and list additional data needed for refinery selection.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude oil quality and assay interpretation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude oil quality and assay interpretation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude oil quality and assay interpretation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude oil quality and assay interpretation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude oil quality and assay interpretation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude oil quality and assay interpretation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude oil quality and assay interpretation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude oil quality and assay interpretation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude oil quality and assay interpretation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude oil quality and assay interpretation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Refining gas processing and product markets

Learning objectives

- Explain refining gas processing and product markets, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Refining gas processing and product markets
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Refining separates crude into fractions and upgrades them to meet product needs. Distillation, conversion and treating perform different functions. Explain simple versus more complex configurations and the role of hydrogen, utilities and environmental controls.

Decision logic. A refinery investment requires feedstock security, product demand, scale, logistics, finance and regulatory feasibility. Local crude production does not by itself justify a refinery. Compare netbacks from export and processing under explicit assumptions.

Worked example. A fictional simple refinery produces fractions that do not match the domestic demand mix, requiring imports or exports anyway.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Develop a refinery-versus-export decision matrix.

Model answer guide. Include product specifications, market size, capital, utilities, emissions, feed assurance and logistics.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Develop a refinery-versus-export decision matrix.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of refining gas processing and product markets?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about refining gas processing and product markets?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about refining gas processing and product markets be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating refining gas processing and product markets?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in refining gas processing and product markets?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning refining gas processing and product markets?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for refining gas processing and product markets. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on refining gas processing and product markets contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about refining gas processing and product markets?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in refining gas processing and product markets?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Global petroleum markets and price formation

Learning objectives

- Explain global petroleum markets and price formation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Global petroleum markets and price formation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude markets connect producers, traders, refiners and transport providers. Prices often reference benchmarks adjusted for quality, location and contract terms. OPEC is a producers' organisation, not a buyer qualification or an assurance of payment.

Decision logic. Separate physical delivery, price exposure and credit exposure. A high headline price can be offset by freight, quality discounts, finance or default risk. No company is labelled reliable without current due diligence and an approved transaction basis.

Worked example. Offer A is USD 75/barrel with USD 5 freight; offer B is USD 73 with USD 1 freight, before other terms.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare simplified netbacks and identify non-price checks.

Model answer guide. A gives 70 and B gives 72 USD/barrel; check credit, delivery, sanctions and quality terms before selection.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare simplified netbacks and identify non-price checks.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of global petroleum markets and price formation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about global petroleum markets and price formation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about global petroleum markets and price formation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating global petroleum markets and price formation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in global petroleum markets and price formation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning global petroleum markets and price formation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for global petroleum markets and price formation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on global petroleum markets and price formation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about global petroleum markets and price formation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in global petroleum markets and price formation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Offtaker qualification and crude sales

Learning objectives

- Explain offtaker qualification and crude sales, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offtaker qualification and crude sales
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Offtake evaluation combines buyer identity, ownership, trading capacity, credit, compliance, logistics and contract performance. Explain nomination, measurement, quality adjustment, payment security and delivery terms. Evidence should be verified through authorised sources.

Decision logic. Score technical and commercial capability separately from mandatory compliance requirements. Consider payment timing, security enforceability and concentration risk. A letter of interest is not a binding purchase obligation. Legal and credit specialists approve actual counterparties and terms.

Worked example. An unknown buyer offers the highest price but cannot substantiate credit support or receiving capacity.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a due-diligence checklist and conditional recommendation for three fictional buyers.

Model answer guide. Reject price-only ranking and document unresolved credit and delivery risks.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a due-diligence checklist and conditional recommendation for three fictional buyers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offtaker qualification and crude sales?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offtaker qualification and crude sales?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offtaker qualification and crude sales be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offtaker qualification and crude sales?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offtaker qualification and crude sales?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offtaker qualification and crude sales?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offtaker qualification and crude sales. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offtaker qualification and crude sales contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offtaker qualification and crude sales?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offtaker qualification and crude sales?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Crude-Oil Quality, Refining and Product Markets: Work Planning

Learning objectives

- Explain crude-oil quality, refining and product markets: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude-Oil Quality, Refining and Product Markets: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude-Oil Quality, Refining and Product Markets: Work Planning describes a practical part of Crude-Oil Quality, Refining and Product Markets. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for crude-oil quality, refining and product markets: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans crude-oil quality, refining and product markets: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for crude-oil quality, refining and product markets: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for crude-oil quality, refining and product markets: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude-oil quality, refining and product markets: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude-oil quality, refining and product markets: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude-oil quality, refining and product markets: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude-oil quality, refining and product markets: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude-oil quality, refining and product markets: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude-oil quality, refining and product markets: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude-oil quality, refining and product markets: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude-oil quality, refining and product markets: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude-oil quality, refining and product markets: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude-oil quality, refining and product markets: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Crude-Oil Quality, Refining and Product Markets: Data and Performance

Learning objectives

- Explain crude-oil quality, refining and product markets: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude-Oil Quality, Refining and Product Markets: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude-Oil Quality, Refining and Product Markets: Data and Performance describes a practical part of Crude-Oil Quality, Refining and Product Markets. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for crude-oil quality, refining and product markets: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans crude-oil quality, refining and product markets: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for crude-oil quality, refining and product markets: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for crude-oil quality, refining and product markets: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude-oil quality, refining and product markets: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude-oil quality, refining and product markets: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude-oil quality, refining and product markets: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude-oil quality, refining and product markets: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude-oil quality, refining and product markets: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude-oil quality, refining and product markets: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude-oil quality, refining and product markets: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude-oil quality, refining and product markets: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude-oil quality, refining and product markets: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude-oil quality, refining and product markets: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Crude-Oil Quality, Refining and Product Markets: Applied Case

Learning objectives

- Explain crude-oil quality, refining and product markets: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude-Oil Quality, Refining and Product Markets: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude-Oil Quality, Refining and Product Markets: Applied Case describes a practical part of Crude-Oil Quality, Refining and Product Markets. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for crude-oil quality, refining and product markets: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans crude-oil quality, refining and product markets: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for crude-oil quality, refining and product markets: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for crude-oil quality, refining and product markets: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude-oil quality, refining and product markets: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude-oil quality, refining and product markets: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude-oil quality, refining and product markets: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude-oil quality, refining and product markets: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude-oil quality, refining and product markets: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude-oil quality, refining and product markets: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude-oil quality, refining and product markets: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude-oil quality, refining and product markets: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude-oil quality, refining and product markets: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude-oil quality, refining and product markets: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Crude-Oil Quality, Refining and Product Markets: Communication and Escalation

Learning objectives

- Explain crude-oil quality, refining and product markets: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude-Oil Quality, Refining and Product Markets: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude-Oil Quality, Refining and Product Markets: Communication and Escalation describes a practical part of Crude-Oil Quality, Refining and Product Markets. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for crude-oil quality, refining and product markets: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans crude-oil quality, refining and product markets: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for crude-oil quality, refining and product markets: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for crude-oil quality, refining and product markets: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude-oil quality, refining and product markets: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude-oil quality, refining and product markets: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude-oil quality, refining and product markets: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude-oil quality, refining and product markets: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude-oil quality, refining and product markets: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude-oil quality, refining and product markets: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude-oil quality, refining and product markets: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude-oil quality, refining and product markets: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude-oil quality, refining and product markets: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude-oil quality, refining and product markets: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Crude-Oil Quality, Refining and Product Markets: Knowledge Check

Learning objectives

- Explain crude-oil quality, refining and product markets: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude-Oil Quality, Refining and Product Markets: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude-Oil Quality, Refining and Product Markets: Knowledge Check describes a practical part of Crude-Oil Quality, Refining and Product Markets. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for crude-oil quality, refining and product markets: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans crude-oil quality, refining and product markets: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for crude-oil quality, refining and product markets: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for crude-oil quality, refining and product markets: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude-oil quality, refining and product markets: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude-oil quality, refining and product markets: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude-oil quality, refining and product markets: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude-oil quality, refining and product markets: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude-oil quality, refining and product markets: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude-oil quality, refining and product markets: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude-oil quality, refining and product markets: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude-oil quality, refining and product markets: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude-oil quality, refining and product markets: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude-oil quality, refining and product markets: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Crude-Oil Quality, Refining and Product Markets: Competence Review

Learning objectives

- Explain crude-oil quality, refining and product markets: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Crude-Oil Quality, Refining and Product Markets: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Crude-Oil Quality, Refining and Product Markets

Teaching notes

Teaching notes

Core explanation. Crude-Oil Quality, Refining and Product Markets: Competence Review describes a practical part of Crude-Oil Quality, Refining and Product Markets. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for crude-oil quality, refining and product markets: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans crude-oil quality, refining and product markets: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for crude-oil quality, refining and product markets: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for crude-oil quality, refining and product markets: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of crude-oil quality, refining and product markets: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about crude-oil quality, refining and product markets: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about crude-oil quality, refining and product markets: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating crude-oil quality, refining and product markets: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in crude-oil quality, refining and product markets: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning crude-oil quality, refining and product markets: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for crude-oil quality, refining and product markets: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on crude-oil quality, refining and product markets: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about crude-oil quality, refining and product markets: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in crude-oil quality, refining and product markets: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-013 | Petroleum Economics and Cash-Flow Fundamentals

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Petroleum Economics and Cash-Flow Fundamentals, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Petroleum Economics and Cash-Flow Fundamentals.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Petroleum project cash flow

Learning objectives

- Explain petroleum project cash flow, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum project cash flow
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Construct cash flow by period from revenue, investment, operating costs, fiscal payments and closure costs. Define project versus equity perspective and real versus nominal money. Profit in an income statement is not the same as cash available.

Decision logic. Document timing and sign conventions. Working capital, depreciation and financing affect models differently. Keep an unlevered project model separate from financing unless explicitly integrating both. All classroom fiscal and price assumptions are illustrative.

Worked example. Year zero investment is 100; year one revenue is 80 and operating cost 20. Pre-fiscal cash flows are minus 100 and plus 60.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a three-period cash-flow table with closure cost in the final period.

Model answer guide. Show investment as negative, operations net cash as positive if applicable, and closure explicitly.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a three-period cash-flow table with closure cost in the final period.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum project cash flow?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum project cash flow?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum project cash flow be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum project cash flow?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum project cash flow?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum project cash flow?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum project cash flow. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum project cash flow contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum project cash flow?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum project cash flow?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: CAPEX OPEX and estimating

Learning objectives

- Explain capex opex and estimating, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of CAPEX OPEX and estimating
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Capital estimates cover assets and development; operating estimates cover recurring delivery and support activities. Define scope, price basis, location, currency, schedule and exclusions before estimating. A number without its basis is difficult to review.

Decision logic. Use analogous, parametric and bottom-up methods according to data maturity. Separate base estimate, identified risk contingency and other reserves under the adopted governance. Avoid implying that contingency is spare money for scope additions.

Worked example. A fictional equipment package is 10 million and installation is estimated at 40% of equipment cost; subtotal is 14 million before other scope.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Write an estimate basis and identify five excluded cost items.

Model answer guide. Include logistics, commissioning, taxes, spares and owner costs where appropriate; state assumptions rather than silently adding them.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Write an estimate basis and identify five excluded cost items.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of capex opex and estimating?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about capex opex and estimating?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about capex opex and estimating be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating capex opex and estimating?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in capex opex and estimating?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning capex opex and estimating?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for capex opex and estimating. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on capex opex and estimating contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about capex opex and estimating?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in capex opex and estimating?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: NPV IRR and payback

Learning objectives

- Explain npv irr and payback, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of NPV IRR and payback
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Net present value discounts dated cash flows at a stated rate. Internal rate of return is a rate making NPV zero and may be ambiguous for unusual cash-flow patterns. Payback measures recovery timing and ignores some value effects.

Decision logic. Compare projects using consistent perspective, currency and risk assumptions. NPV scale and capital constraints matter; ranking by IRR alone can mislead. Real cash flows require a compatible real discount rate and nominal flows a compatible nominal rate.

Worked example. Minus 100 now and plus 121 after two years has zero NPV at 10% because 121 divided by 1.1 squared equals 100.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate NPV at 5% and explain why the result changes.

Model answer guide. NPV is about 9.75; a lower discount rate increases the present value of the future receipt.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate NPV at 5% and explain why the result changes.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of npv irr and payback?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about npv irr and payback?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about npv irr and payback be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating npv irr and payback?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in npv irr and payback?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning npv irr and payback?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for npv irr and payback. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on npv irr and payback contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about npv irr and payback?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in npv irr and payback?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Sensitivity and scenario analysis

Learning objectives

- Explain sensitivity and scenario analysis, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Sensitivity and scenario analysis
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Sensitivity changes one input to understand model response; scenarios change coherent sets of assumptions. A tornado chart ranks tested effects, not the probability of events. Distinguish uncertainty ranges from forecasts and assigned probabilities.

Decision logic. Check dependencies: schedule delay may increase cost and defer revenue together. A correlated downside should not be represented as independent optimistic inputs. Identify decision-changing variables and the evidence that could narrow them.

Worked example. Price down 20% and CAPEX up 20% are separate sensitivities; combined delay, inflation and low price is a downside scenario.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a sensitivity table and one coherent downside scenario.

Model answer guide. Preserve the base case, document changed inputs, and explain causal links in the combined case.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a sensitivity table and one coherent downside scenario.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of sensitivity and scenario analysis?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about sensitivity and scenario analysis?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about sensitivity and scenario analysis be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating sensitivity and scenario analysis?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in sensitivity and scenario analysis?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning sensitivity and scenario analysis?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for sensitivity and scenario analysis. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on sensitivity and scenario analysis contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about sensitivity and scenario analysis?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in sensitivity and scenario analysis?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Petroleum Economics and Cash-Flow Fundamentals: Work Planning

Learning objectives

- Explain petroleum economics and cash-flow fundamentals: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Economics and Cash-Flow Fundamentals: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Economics and Cash-Flow Fundamentals: Work Planning describes a practical part of Petroleum Economics and Cash-Flow Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum economics and cash-flow fundamentals: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum economics and cash-flow fundamentals: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum economics and cash-flow fundamentals: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum economics and cash-flow fundamentals: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics and cash-flow fundamentals: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics and cash-flow fundamentals: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics and cash-flow fundamentals: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics and cash-flow fundamentals: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics and cash-flow fundamentals: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics and cash-flow fundamentals: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics and cash-flow fundamentals: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics and cash-flow fundamentals: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics and cash-flow fundamentals: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics and cash-flow fundamentals: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Petroleum Economics and Cash-Flow Fundamentals: Data and Performance

Learning objectives

- Explain petroleum economics and cash-flow fundamentals: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Economics and Cash-Flow Fundamentals: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Economics and Cash-Flow Fundamentals: Data and Performance describes a practical part of Petroleum Economics and Cash-Flow Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum economics and cash-flow fundamentals: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum economics and cash-flow fundamentals: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum economics and cash-flow fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum economics and cash-flow fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics and cash-flow fundamentals: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics and cash-flow fundamentals: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics and cash-flow fundamentals: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics and cash-flow fundamentals: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics and cash-flow fundamentals: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics and cash-flow fundamentals: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics and cash-flow fundamentals: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics and cash-flow fundamentals: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics and cash-flow fundamentals: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics and cash-flow fundamentals: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Petroleum Economics and Cash-Flow Fundamentals: Applied Case

Learning objectives

- Explain petroleum economics and cash-flow fundamentals: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Economics and Cash-Flow Fundamentals: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Economics and Cash-Flow Fundamentals: Applied Case describes a practical part of Petroleum Economics and Cash-Flow Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum economics and cash-flow fundamentals: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum economics and cash-flow fundamentals: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum economics and cash-flow fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum economics and cash-flow fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics and cash-flow fundamentals: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics and cash-flow fundamentals: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics and cash-flow fundamentals: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics and cash-flow fundamentals: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics and cash-flow fundamentals: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics and cash-flow fundamentals: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics and cash-flow fundamentals: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics and cash-flow fundamentals: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics and cash-flow fundamentals: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics and cash-flow fundamentals: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Petroleum Economics and Cash-Flow Fundamentals: Communication and Escalation

Learning objectives

- Explain petroleum economics and cash-flow fundamentals: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Economics and Cash-Flow Fundamentals: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Economics and Cash-Flow Fundamentals: Communication and Escalation describes a practical part of Petroleum Economics and Cash-Flow Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum economics and cash-flow fundamentals: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum economics and cash-flow fundamentals: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum economics and cash-flow fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum economics and cash-flow fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics and cash-flow fundamentals: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics and cash-flow fundamentals: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics and cash-flow fundamentals: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics and cash-flow fundamentals: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics and cash-flow fundamentals: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics and cash-flow fundamentals: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics and cash-flow fundamentals: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics and cash-flow fundamentals: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics and cash-flow fundamentals: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics and cash-flow fundamentals: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Petroleum Economics and Cash-Flow Fundamentals: Knowledge Check

Learning objectives

- Explain petroleum economics and cash-flow fundamentals: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Economics and Cash-Flow Fundamentals: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Economics and Cash-Flow Fundamentals: Knowledge Check describes a practical part of Petroleum Economics and Cash-Flow Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum economics and cash-flow fundamentals: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum economics and cash-flow fundamentals: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum economics and cash-flow fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum economics and cash-flow fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics and cash-flow fundamentals: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics and cash-flow fundamentals: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics and cash-flow fundamentals: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics and cash-flow fundamentals: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics and cash-flow fundamentals: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics and cash-flow fundamentals: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics and cash-flow fundamentals: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics and cash-flow fundamentals: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics and cash-flow fundamentals: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics and cash-flow fundamentals: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Petroleum Economics and Cash-Flow Fundamentals: Competence Review

Learning objectives

- Explain petroleum economics and cash-flow fundamentals: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Economics and Cash-Flow Fundamentals: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Economics and Cash-Flow Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Economics and Cash-Flow Fundamentals: Competence Review describes a practical part of Petroleum Economics and Cash-Flow Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum economics and cash-flow fundamentals: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum economics and cash-flow fundamentals: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum economics and cash-flow fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum economics and cash-flow fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics and cash-flow fundamentals: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics and cash-flow fundamentals: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics and cash-flow fundamentals: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics and cash-flow fundamentals: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics and cash-flow fundamentals: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics and cash-flow fundamentals: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics and cash-flow fundamentals: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics and cash-flow fundamentals: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics and cash-flow fundamentals: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics and cash-flow fundamentals: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-014 | Petroleum Law, Fiscal Systems and Local Content Fundamentals

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Petroleum Law, Fiscal Systems and Local Content Fundamentals, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Petroleum Law, Fiscal Systems and Local Content Fundamentals.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Petroleum legislative architecture

Learning objectives

- Explain petroleum legislative architecture, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum legislative architecture
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Distinguish legislation, regulations, licence conditions, contracts and internal procedures. Public-law obligations and private agreements serve different functions. A commercial agreement cannot be assumed to waive a statutory requirement. Identify which authority and jurisdiction govern each issue.

Decision logic. Teach a verification method rather than unverified current legal rules: locate the official instrument, record amendment and commencement status, confirm applicability, and obtain qualified review. Classroom comparisons of concessions and PSAs are not statements of Namibia's adopted system.

Worked example. A contract refers to an old environmental instrument; the legal register must check current requirements before relying on it.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a legal-register template for exploration, development and operations.

Model answer guide. Include instrument, version, duty, applicability, owner, evidence and next review date.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a legal-register template for exploration, development and operations.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum legislative architecture?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum legislative architecture?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum legislative architecture be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum legislative architecture?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum legislative architecture?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum legislative architecture?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum legislative architecture. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum legislative architecture contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum legislative architecture?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum legislative architecture?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Licensing and acreage management

Learning objectives

- Explain licensing and acreage management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Licensing and acreage management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Licences define rights and obligations within specified areas and periods. Work commitments, reporting, transfers and relinquishment may be governed by the applicable framework. Explain the difference between holding acreage and receiving all approvals to develop or operate.

Decision logic. Assess technical capability, beneficial ownership, financial capacity and compliance evidence within lawful processes. Keep commercial attractiveness separate from eligibility. Do not invent bid-round dates, licence terms or regulator powers for Namibia.

Worked example. A fictional explorer holds an exploration right but has not secured approval for a later development activity.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build an approval dependency map and identify verification questions.

Model answer guide. Separate rights, environmental approvals, development decisions and operational consents; verify each duty.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build an approval dependency map and identify verification questions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of licensing and acreage management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about licensing and acreage management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about licensing and acreage management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating licensing and acreage management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in licensing and acreage management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning licensing and acreage management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for licensing and acreage management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on licensing and acreage management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about licensing and acreage management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in licensing and acreage management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Royalties taxes and government take

Learning objectives

- Explain royalties taxes and government take, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Royalties taxes and government take
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Fiscal systems allocate project value between investors and the state through mechanisms such as royalties, taxes, bonuses or contractual sharing. Compare mechanisms conceptually. Do not assume a production-sharing system applies to Namibia or import tax rates from another jurisdiction.

Decision logic. Model the actual legal and contractual hierarchy only after specialist verification. Government take depends on timing, cost recovery, deductions and price as well as headline rates. Keep illustrative fiscal cases visibly separate from current law.

Worked example. In a fictional classroom system, 5% royalty on USD 100 revenue is USD 5. This assumption is not a statement of Namibian law.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare a gross-revenue royalty with a profit-based levy using two cost scenarios.

Model answer guide. Royalty remains linked to gross revenue while profit-based payments change with allowed costs; note legal definitions matter.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare a gross-revenue royalty with a profit-based levy using two cost scenarios.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of royalties taxes and government take?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about royalties taxes and government take?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about royalties taxes and government take be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating royalties taxes and government take?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in royalties taxes and government take?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning royalties taxes and government take?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for royalties taxes and government take. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on royalties taxes and government take contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about royalties taxes and government take?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in royalties taxes and government take?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Local content and national value

Learning objectives

- Explain local content and national value, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Local content and national value
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Local content can include employment, skills, supplier participation and durable industrial capability. Distinguish domestic ownership, local expenditure and actual value retained locally. A purchase from a locally registered importer may contain little domestic production.

Decision logic. Measure outcomes with a defined boundary, baseline and evidence. Avoid assuming a proposed policy target is current law. Supplier development must protect quality and safety while building realistic capacity and fair access.

Worked example. A fictional USD 1 million local invoice contains USD 850,000 imported equipment and USD 150,000 local services.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the local-service share and propose more meaningful indicators.

Model answer guide. Fifteen percent in this simplified boundary; employment, skills and retained value need separate evidence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the local-service share and propose more meaningful indicators.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of local content and national value?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about local content and national value?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about local content and national value be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating local content and national value?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in local content and national value?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning local content and national value?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for local content and national value. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on local content and national value contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about local content and national value?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in local content and national value?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Petroleum Law, Fiscal Systems and Local Content Fundamentals: Work Planning

Learning objectives

- Explain petroleum law, fiscal systems and local content fundamentals: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Law, Fiscal Systems and Local Content Fundamentals: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Law, Fiscal Systems and Local Content Fundamentals: Work Planning describes a practical part of Petroleum Law, Fiscal Systems and Local Content Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum law, fiscal systems and local content fundamentals: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum law, fiscal systems and local content fundamentals: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum law, fiscal systems and local content fundamentals: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum law, fiscal systems and local content fundamentals: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum law, fiscal systems and local content fundamentals: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum law, fiscal systems and local content fundamentals: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum law, fiscal systems and local content fundamentals: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum law, fiscal systems and local content fundamentals: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum law, fiscal systems and local content fundamentals: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum law, fiscal systems and local content fundamentals: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum law, fiscal systems and local content fundamentals: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum law, fiscal systems and local content fundamentals: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Petroleum Law, Fiscal Systems and Local Content Fundamentals: Data and Performance

Learning objectives

- Explain petroleum law, fiscal systems and local content fundamentals: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Law, Fiscal Systems and Local Content Fundamentals: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Law, Fiscal Systems and Local Content Fundamentals: Data and Performance describes a practical part of Petroleum Law, Fiscal Systems and Local Content Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum law, fiscal systems and local content fundamentals: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum law, fiscal systems and local content fundamentals: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum law, fiscal systems and local content fundamentals: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum law, fiscal systems and local content fundamentals: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum law, fiscal systems and local content fundamentals: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum law, fiscal systems and local content fundamentals: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum law, fiscal systems and local content fundamentals: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum law, fiscal systems and local content fundamentals: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum law, fiscal systems and local content fundamentals: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum law, fiscal systems and local content fundamentals: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum law, fiscal systems and local content fundamentals: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum law, fiscal systems and local content fundamentals: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Petroleum Law, Fiscal Systems and Local Content Fundamentals: Applied Case

Learning objectives

- Explain petroleum law, fiscal systems and local content fundamentals: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Law, Fiscal Systems and Local Content Fundamentals: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Law, Fiscal Systems and Local Content Fundamentals: Applied Case describes a practical part of Petroleum Law, Fiscal Systems and Local Content Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum law, fiscal systems and local content fundamentals: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum law, fiscal systems and local content fundamentals: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum law, fiscal systems and local content fundamentals: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum law, fiscal systems and local content fundamentals: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum law, fiscal systems and local content fundamentals: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum law, fiscal systems and local content fundamentals: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum law, fiscal systems and local content fundamentals: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum law, fiscal systems and local content fundamentals: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum law, fiscal systems and local content fundamentals: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum law, fiscal systems and local content fundamentals: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum law, fiscal systems and local content fundamentals: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum law, fiscal systems and local content fundamentals: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Petroleum Law, Fiscal Systems and Local Content Fundamentals: Communication and Escalation

Learning objectives

- Explain petroleum law, fiscal systems and local content fundamentals: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Law, Fiscal Systems and Local Content Fundamentals: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Law, Fiscal Systems and Local Content Fundamentals: Communication and Escalation describes a practical part of Petroleum Law, Fiscal Systems and Local Content Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum law, fiscal systems and local content fundamentals: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum law, fiscal systems and local content fundamentals: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum law, fiscal systems and local content fundamentals: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum law, fiscal systems and local content fundamentals: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum law, fiscal systems and local content fundamentals: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum law, fiscal systems and local content fundamentals: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Petroleum Law, Fiscal Systems and Local Content Fundamentals: Knowledge Check

Learning objectives

- Explain petroleum law, fiscal systems and local content fundamentals: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Law, Fiscal Systems and Local Content Fundamentals: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Law, Fiscal Systems and Local Content Fundamentals: Knowledge Check describes a practical part of Petroleum Law, Fiscal Systems and Local Content Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum law, fiscal systems and local content fundamentals: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum law, fiscal systems and local content fundamentals: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum law, fiscal systems and local content fundamentals: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum law, fiscal systems and local content fundamentals: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum law, fiscal systems and local content fundamentals: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum law, fiscal systems and local content fundamentals: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Petroleum Law, Fiscal Systems and Local Content Fundamentals: Competence Review

Learning objectives

- Explain petroleum law, fiscal systems and local content fundamentals: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum Law, Fiscal Systems and Local Content Fundamentals: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Petroleum Law, Fiscal Systems and Local Content Fundamentals

Teaching notes

Teaching notes

Core explanation. Petroleum Law, Fiscal Systems and Local Content Fundamentals: Competence Review describes a practical part of Petroleum Law, Fiscal Systems and Local Content Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for petroleum law, fiscal systems and local content fundamentals: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans petroleum law, fiscal systems and local content fundamentals: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for petroleum law, fiscal systems and local content fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum law, fiscal systems and local content fundamentals: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum law, fiscal systems and local content fundamentals: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum law, fiscal systems and local content fundamentals: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum law, fiscal systems and local content fundamentals: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum law, fiscal systems and local content fundamentals: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum law, fiscal systems and local content fundamentals: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum law, fiscal systems and local content fundamentals: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum law, fiscal systems and local content fundamentals: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum law, fiscal systems and local content fundamentals: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum law, fiscal systems and local content fundamentals: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-015 | Marine Environmental Protection and Oil-Spill Awareness

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Marine Environmental Protection and Oil-Spill Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Marine Environmental Protection and Oil-Spill Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Marine ecosystems and receptors

Learning objectives

- Explain marine ecosystems and receptors, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine ecosystems and receptors
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine environmental assessment considers habitats, species, fisheries and human uses through seasonal and spatial patterns. A receptor is something potentially affected; a pathway links activity to exposure. Explain baseline variability before attributing change.

Decision logic. Build an activity-pathway-receptor model and identify data gaps. A single survey cannot represent every season. Comparisons must account for natural variability and sampling design. Do not invent local species distributions or protected-area boundaries.

Worked example. A fictional fishery overlaps a planned vessel route during only one season.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a seasonal receptor map using the provided fictional description.

Model answer guide. Identify timing, exposure and evidence needs; distinguish overlap from demonstrated impact.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a seasonal receptor map using the provided fictional description.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine ecosystems and receptors?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine ecosystems and receptors?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine ecosystems and receptors be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine ecosystems and receptors?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine ecosystems and receptors?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine ecosystems and receptors?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine ecosystems and receptors. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine ecosystems and receptors contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine ecosystems and receptors?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine ecosystems and receptors?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Produced water hazardous substances and waste

Learning objectives

- Explain produced water hazardous substances and waste, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Produced water hazardous substances and waste
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Waste management identifies streams, hazards, storage, treatment, transport and final disposition. Separate prevention, reuse, recovery and disposal. Safety data sheets support hazardous-substance understanding but do not replace task assessment.

Decision logic. Track quantities and chain of custody. Mixing streams can increase hazards or eliminate recovery options. Actual handling and discharge limits come from applicable approvals and competent procedures, not classroom defaults. Include spill prevention and contractor verification.

Worked example. A fictional warehouse labels used oil as general waste, obscuring treatment and disposal requirements.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a waste-stream register with controls and evidence.

Model answer guide. Include classification, segregation, containment, authorised route, quantities and receipts.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a waste-stream register with controls and evidence.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of produced water hazardous substances and waste?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about produced water hazardous substances and waste?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about produced water hazardous substances and waste be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating produced water hazardous substances and waste?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in produced water hazardous substances and waste?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning produced water hazardous substances and waste?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for produced water hazardous substances and waste. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on produced water hazardous substances and waste contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about produced water hazardous substances and waste?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in produced water hazardous substances and waste?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Oil spill prevention and response awareness

Learning objectives

- Explain oil spill prevention and response awareness, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil spill prevention and response awareness
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Spill prevention addresses containment, transfer interfaces, equipment integrity and human actions. Response aims to protect people, prioritise receptors and use suitable tactics under authorised command. Response options depend on oil, weather and access.

Decision logic. Teach notification and planning through tabletop cases. Equipment presence alone does not establish readiness. Actual deployment, dispersant use and marine operations require competent teams and applicable approvals. This course does not confer an external response qualification.

Worked example. A hose leak occurs during a fictional transfer; wind and current threaten a sensitive receptor.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a first-response decision log without activating real equipment.

Model answer guide. Prioritise safety, source control within authority, notification, verified information and coordinated response.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a first-response decision log without activating real equipment.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil spill prevention and response awareness?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil spill prevention and response awareness?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil spill prevention and response awareness be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil spill prevention and response awareness?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil spill prevention and response awareness?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil spill prevention and response awareness?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil spill prevention and response awareness. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil spill prevention and response awareness contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil spill prevention and response awareness?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil spill prevention and response awareness?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Marine monitoring and evidence quality

Learning objectives

- Explain marine monitoring and evidence quality, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine monitoring and evidence quality
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Monitoring tests defined questions using repeatable sampling, measurement and analysis. Explain baseline, reference locations, quality control and detection limits. A changing measurement does not establish its cause automatically.

Decision logic. Specify indicators, frequency, methods, responsibilities and action thresholds through competent review. Maintain chain of custody and calibration records. Interpret trends alongside natural variability and other activities. Avoid using unsupported universal compliance limits.

Worked example. A sample result rises after a storm at both project and reference locations.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Interpret the result and propose a proportionate follow-up.

Model answer guide. Consider regional variability, method quality and exposure pathways before attributing causation.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Interpret the result and propose a proportionate follow-up.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine monitoring and evidence quality?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine monitoring and evidence quality?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine monitoring and evidence quality be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine monitoring and evidence quality?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine monitoring and evidence quality?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine monitoring and evidence quality?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine monitoring and evidence quality. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine monitoring and evidence quality contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine monitoring and evidence quality?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine monitoring and evidence quality?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Marine Environmental Protection and Oil-Spill Awareness: Work Planning

Learning objectives

- Explain marine environmental protection and oil-spill awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Environmental Protection and Oil-Spill Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine Environmental Protection and Oil-Spill Awareness: Work Planning describes a practical part of Marine Environmental Protection and Oil-Spill Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine environmental protection and oil-spill awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine environmental protection and oil-spill awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine environmental protection and oil-spill awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine environmental protection and oil-spill awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine environmental protection and oil-spill awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine environmental protection and oil-spill awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine environmental protection and oil-spill awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine environmental protection and oil-spill awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine environmental protection and oil-spill awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine environmental protection and oil-spill awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine environmental protection and oil-spill awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine environmental protection and oil-spill awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine environmental protection and oil-spill awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine environmental protection and oil-spill awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Marine Environmental Protection and Oil-Spill Awareness: Data and Performance

Learning objectives

- Explain marine environmental protection and oil-spill awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Environmental Protection and Oil-Spill Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine Environmental Protection and Oil-Spill Awareness: Data and Performance describes a practical part of Marine Environmental Protection and Oil-Spill Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine environmental protection and oil-spill awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine environmental protection and oil-spill awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine environmental protection and oil-spill awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine environmental protection and oil-spill awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine environmental protection and oil-spill awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine environmental protection and oil-spill awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine environmental protection and oil-spill awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine environmental protection and oil-spill awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine environmental protection and oil-spill awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine environmental protection and oil-spill awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine environmental protection and oil-spill awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine environmental protection and oil-spill awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine environmental protection and oil-spill awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine environmental protection and oil-spill awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Marine Environmental Protection and Oil-Spill Awareness: Applied Case

Learning objectives

- Explain marine environmental protection and oil-spill awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Environmental Protection and Oil-Spill Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine Environmental Protection and Oil-Spill Awareness: Applied Case describes a practical part of Marine Environmental Protection and Oil-Spill Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine environmental protection and oil-spill awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine environmental protection and oil-spill awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine environmental protection and oil-spill awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine environmental protection and oil-spill awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine environmental protection and oil-spill awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine environmental protection and oil-spill awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine environmental protection and oil-spill awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine environmental protection and oil-spill awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine environmental protection and oil-spill awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine environmental protection and oil-spill awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine environmental protection and oil-spill awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine environmental protection and oil-spill awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine environmental protection and oil-spill awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine environmental protection and oil-spill awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Marine Environmental Protection and Oil-Spill Awareness: Communication and Escalation

Learning objectives

- Explain marine environmental protection and oil-spill awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Environmental Protection and Oil-Spill Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine Environmental Protection and Oil-Spill Awareness: Communication and Escalation describes a practical part of Marine Environmental Protection and Oil-Spill Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine environmental protection and oil-spill awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine environmental protection and oil-spill awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine environmental protection and oil-spill awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine environmental protection and oil-spill awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine environmental protection and oil-spill awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine environmental protection and oil-spill awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine environmental protection and oil-spill awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine environmental protection and oil-spill awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine environmental protection and oil-spill awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine environmental protection and oil-spill awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine environmental protection and oil-spill awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine environmental protection and oil-spill awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine environmental protection and oil-spill awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine environmental protection and oil-spill awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Marine Environmental Protection and Oil-Spill Awareness: Knowledge Check

Learning objectives

- Explain marine environmental protection and oil-spill awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Environmental Protection and Oil-Spill Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine Environmental Protection and Oil-Spill Awareness: Knowledge Check describes a practical part of Marine Environmental Protection and Oil-Spill Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine environmental protection and oil-spill awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine environmental protection and oil-spill awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine environmental protection and oil-spill awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine environmental protection and oil-spill awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine environmental protection and oil-spill awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine environmental protection and oil-spill awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine environmental protection and oil-spill awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine environmental protection and oil-spill awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine environmental protection and oil-spill awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine environmental protection and oil-spill awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine environmental protection and oil-spill awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine environmental protection and oil-spill awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine environmental protection and oil-spill awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine environmental protection and oil-spill awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Marine Environmental Protection and Oil-Spill Awareness: Competence Review

Learning objectives

- Explain marine environmental protection and oil-spill awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine Environmental Protection and Oil-Spill Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Marine Environmental Protection and Oil-Spill Awareness

Teaching notes

Teaching notes

Core explanation. Marine Environmental Protection and Oil-Spill Awareness: Competence Review describes a practical part of Marine Environmental Protection and Oil-Spill Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for marine environmental protection and oil-spill awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans marine environmental protection and oil-spill awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for marine environmental protection and oil-spill awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for marine environmental protection and oil-spill awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine environmental protection and oil-spill awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine environmental protection and oil-spill awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine environmental protection and oil-spill awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine environmental protection and oil-spill awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine environmental protection and oil-spill awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine environmental protection and oil-spill awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine environmental protection and oil-spill awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine environmental protection and oil-spill awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine environmental protection and oil-spill awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine environmental protection and oil-spill awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-016 | Oil and Gas Supply Chain and Vendor Readiness

Level: SC | Duration: 2 days | Audience: Learners appropriate to the stated programme level

2 days SC programme focused on Oil and Gas Supply Chain and Vendor Readiness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Oil and Gas Supply Chain and Vendor Readiness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Procurement and supplier qualification

Learning objectives

- Explain procurement and supplier qualification, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Procurement and supplier qualification
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Procurement translates a defined need into sourcing, evaluation, award and contract management. Separate mandatory eligibility, technical acceptance and commercial comparison. Clear specifications and evaluation criteria should exist before bids are opened.

Decision logic. Manage conflicts, confidentiality and fair treatment. Lowest price may not be lowest evaluated cost if quality, delivery and lifecycle support differ. Document decisions and follow delegated authority; this classroom exercise awards no real contracts.

Worked example. A low bid excludes offshore mobilisation while another includes it.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Normalise three fictional bids and prepare an evaluation recommendation.

Model answer guide. Compare like-for-like scope, clarify exclusions and include risk with an auditable decision basis.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Normalise three fictional bids and prepare an evaluation recommendation.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of procurement and supplier qualification?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about procurement and supplier qualification?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about procurement and supplier qualification be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating procurement and supplier qualification?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in procurement and supplier qualification?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning procurement and supplier qualification?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for procurement and supplier qualification. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on procurement and supplier qualification contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about procurement and supplier qualification?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in procurement and supplier qualification?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Supplier qualification and development

Learning objectives

- Explain supplier qualification and development, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Supplier qualification and development
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Supplier readiness combines legal identity, technical capability, HSE, quality, finance and delivery capacity. Prequalification is a screening stage, not an award guarantee. SMEs need clear evidence requirements and realistic package sizes.

Decision logic. Diagnose gaps and agree measurable development actions. Keep conflict-of-interest controls and transparent evaluation. A supplier can be ready for one package but not another; capability is scope-specific. Avoid treating registration on a portal as proof of competence.

Worked example. A small firm has strong fabrication skill but no traceable material-control process for the proposed package.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a supplier improvement plan with evidence and milestones.

Model answer guide. Include material traceability, qualified personnel, quality records and capacity checks matched to scope.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a supplier improvement plan with evidence and milestones.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of supplier qualification and development?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about supplier qualification and development?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about supplier qualification and development be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating supplier qualification and development?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in supplier qualification and development?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning supplier qualification and development?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for supplier qualification and development. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on supplier qualification and development contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about supplier qualification and development?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in supplier qualification and development?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Contract strategy and risk allocation

Learning objectives

- Explain contract strategy and risk allocation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contract strategy and risk allocation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Contracts define scope, deliverables, payment, acceptance, change and remedies. Lump sum, reimbursable and target-cost arrangements allocate uncertainty differently. Begin with scope maturity and market capability rather than choosing a familiar contract label.

Decision logic. Risk should be allocated to parties able to manage it, with realistic pricing and assurance. Unclear interfaces create disputes despite detailed clauses. Actual indemnity, liability, insurance and governing-law terms require qualified legal and commercial review.

Worked example. A supplier prices an undefined offshore interface as an exclusion; the owner's total risk remains unresolved.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft a scope and interface schedule for a fictional package.

Model answer guide. Include deliverables, acceptance evidence, owner interfaces, change control and exclusions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draft a scope and interface schedule for a fictional package.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contract strategy and risk allocation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contract strategy and risk allocation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contract strategy and risk allocation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contract strategy and risk allocation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contract strategy and risk allocation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contract strategy and risk allocation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contract strategy and risk allocation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contract strategy and risk allocation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contract strategy and risk allocation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contract strategy and risk allocation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Local content and national value

Learning objectives

- Explain local content and national value, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Local content and national value
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Local content can include employment, skills, supplier participation and durable industrial capability. Distinguish domestic ownership, local expenditure and actual value retained locally. A purchase from a locally registered importer may contain little domestic production.

Decision logic. Measure outcomes with a defined boundary, baseline and evidence. Avoid assuming a proposed policy target is current law. Supplier development must protect quality and safety while building realistic capacity and fair access.

Worked example. A fictional USD 1 million local invoice contains USD 850,000 imported equipment and USD 150,000 local services.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the local-service share and propose more meaningful indicators.

Model answer guide. Fifteen percent in this simplified boundary; employment, skills and retained value need separate evidence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the local-service share and propose more meaningful indicators.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of local content and national value?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about local content and national value?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about local content and national value be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating local content and national value?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in local content and national value?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning local content and national value?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for local content and national value. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on local content and national value contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about local content and national value?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in local content and national value?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Oil and Gas Supply Chain and Vendor Readiness: Work Planning

Learning objectives

- Explain oil and gas supply chain and vendor readiness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Supply Chain and Vendor Readiness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Oil and Gas Supply Chain and Vendor Readiness: Work Planning describes a practical part of Oil and Gas Supply Chain and Vendor Readiness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas supply chain and vendor readiness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas supply chain and vendor readiness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas supply chain and vendor readiness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas supply chain and vendor readiness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas supply chain and vendor readiness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas supply chain and vendor readiness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas supply chain and vendor readiness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas supply chain and vendor readiness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas supply chain and vendor readiness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas supply chain and vendor readiness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas supply chain and vendor readiness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas supply chain and vendor readiness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas supply chain and vendor readiness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas supply chain and vendor readiness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Oil and Gas Supply Chain and Vendor Readiness: Data and Performance

Learning objectives

- Explain oil and gas supply chain and vendor readiness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Supply Chain and Vendor Readiness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Oil and Gas Supply Chain and Vendor Readiness: Data and Performance describes a practical part of Oil and Gas Supply Chain and Vendor Readiness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas supply chain and vendor readiness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas supply chain and vendor readiness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas supply chain and vendor readiness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas supply chain and vendor readiness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas supply chain and vendor readiness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas supply chain and vendor readiness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas supply chain and vendor readiness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas supply chain and vendor readiness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas supply chain and vendor readiness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas supply chain and vendor readiness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas supply chain and vendor readiness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas supply chain and vendor readiness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas supply chain and vendor readiness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas supply chain and vendor readiness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Oil and Gas Supply Chain and Vendor Readiness: Applied Case

Learning objectives

- Explain oil and gas supply chain and vendor readiness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Supply Chain and Vendor Readiness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Oil and Gas Supply Chain and Vendor Readiness: Applied Case describes a practical part of Oil and Gas Supply Chain and Vendor Readiness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas supply chain and vendor readiness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas supply chain and vendor readiness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas supply chain and vendor readiness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas supply chain and vendor readiness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas supply chain and vendor readiness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas supply chain and vendor readiness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas supply chain and vendor readiness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas supply chain and vendor readiness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas supply chain and vendor readiness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas supply chain and vendor readiness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas supply chain and vendor readiness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas supply chain and vendor readiness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas supply chain and vendor readiness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas supply chain and vendor readiness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Oil and Gas Supply Chain and Vendor Readiness: Communication and Escalation

Learning objectives

- Explain oil and gas supply chain and vendor readiness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Supply Chain and Vendor Readiness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Oil and Gas Supply Chain and Vendor Readiness: Communication and Escalation describes a practical part of Oil and Gas Supply Chain and Vendor Readiness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas supply chain and vendor readiness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas supply chain and vendor readiness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas supply chain and vendor readiness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas supply chain and vendor readiness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas supply chain and vendor readiness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas supply chain and vendor readiness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas supply chain and vendor readiness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas supply chain and vendor readiness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas supply chain and vendor readiness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas supply chain and vendor readiness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas supply chain and vendor readiness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas supply chain and vendor readiness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas supply chain and vendor readiness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas supply chain and vendor readiness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Oil and Gas Supply Chain and Vendor Readiness: Knowledge Check

Learning objectives

- Explain oil and gas supply chain and vendor readiness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Supply Chain and Vendor Readiness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Oil and Gas Supply Chain and Vendor Readiness: Knowledge Check describes a practical part of Oil and Gas Supply Chain and Vendor Readiness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas supply chain and vendor readiness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas supply chain and vendor readiness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas supply chain and vendor readiness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas supply chain and vendor readiness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas supply chain and vendor readiness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas supply chain and vendor readiness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas supply chain and vendor readiness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas supply chain and vendor readiness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas supply chain and vendor readiness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas supply chain and vendor readiness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas supply chain and vendor readiness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas supply chain and vendor readiness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas supply chain and vendor readiness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas supply chain and vendor readiness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Oil and Gas Supply Chain and Vendor Readiness: Competence Review

Learning objectives

- Explain oil and gas supply chain and vendor readiness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil and Gas Supply Chain and Vendor Readiness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Oil and Gas Supply Chain and Vendor Readiness

Teaching notes

Teaching notes

Core explanation. Oil and Gas Supply Chain and Vendor Readiness: Competence Review describes a practical part of Oil and Gas Supply Chain and Vendor Readiness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for oil and gas supply chain and vendor readiness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans oil and gas supply chain and vendor readiness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for oil and gas supply chain and vendor readiness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for oil and gas supply chain and vendor readiness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil and gas supply chain and vendor readiness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil and gas supply chain and vendor readiness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil and gas supply chain and vendor readiness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil and gas supply chain and vendor readiness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil and gas supply chain and vendor readiness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil and gas supply chain and vendor readiness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil and gas supply chain and vendor readiness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil and gas supply chain and vendor readiness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil and gas supply chain and vendor readiness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil and gas supply chain and vendor readiness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-017 | Digital Oilfield, Automation and OT Cybersecurity Awareness

Level: SC | Duration: 1 days | Audience: Learners appropriate to the stated programme level

1 days SC programme focused on Digital Oilfield, Automation and OT Cybersecurity Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Digital Oilfield, Automation and OT Cybersecurity Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Industrial instrumentation

Learning objectives

- Explain industrial instrumentation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Industrial instrumentation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Sensors and transmitters convert process conditions into signals. Teach range, span, accuracy, calibration and measurement uncertainty. Pressure, temperature, flow and level measurements use different principles and installation constraints.

Decision logic. Trace a measurement from process interface through signal conversion to display. Incorrect range or units can mislead control and operations. An apparently stable value may be frozen or invalid. Actual instrument work follows authorised isolation and manufacturer procedures.

Worked example. A 4-20 mA signal represents 0-100 units; 12 mA corresponds to 50 units under a linear mapping.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the indicated value at 8 mA and identify assumptions.

Model answer guide. Twenty-five units with linear mapping and a valid signal; check range and status.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the indicated value at 8 mA and identify assumptions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of industrial instrumentation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about industrial instrumentation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about industrial instrumentation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating industrial instrumentation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in industrial instrumentation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning industrial instrumentation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for industrial instrumentation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on industrial instrumentation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about industrial instrumentation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in industrial instrumentation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Industrial data architecture and governance

Learning objectives

- Explain industrial data architecture and governance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Industrial data architecture and governance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Industrial data flows from sensors through historians and integration platforms to analysis and decisions. Define asset identity, units, timestamps, quality status and ownership. A large dataset is not necessarily fit for purpose.

Decision logic. Check time synchronisation, missing values, calibration changes and access permissions before analysis. Keep provenance and revision history. Avoid transferring confidential operational data into exercises; all datasets in this package are fictional.

Worked example. A trend combines pressure in bar and kilopascals under one label, producing a false step change.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a data dictionary and quality checks for a fictional dataset.

Model answer guide. Define units, time basis, validity flags, owner and transformations; resolve inconsistent units before interpretation.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a data dictionary and quality checks for a fictional dataset.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of industrial data architecture and governance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about industrial data architecture and governance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about industrial data architecture and governance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating industrial data architecture and governance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in industrial data architecture and governance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning industrial data architecture and governance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for industrial data architecture and governance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on industrial data architecture and governance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about industrial data architecture and governance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in industrial data architecture and governance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: OT and ICS cybersecurity awareness

Learning objectives

- Explain ot and ics cybersecurity awareness, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of OT and ICS cybersecurity awareness
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Operational technology controls physical processes, so availability, safety and predictable operation are central. Explain assets, zones, connections, remote access and dependencies conceptually. Security controls must be coordinated with operational and safety requirements.

Decision logic. Use a tabletop risk assessment on fictional architecture. Inventory, controlled access, segmentation, backup and recovery are discussion topics, not permission for live changes or scanning. Approved change and incident procedures govern actual systems.

Worked example. An unrecorded remote-support connection bypasses the fictional architecture's reviewed access path.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify risk and propose review questions without touching any real network.

Model answer guide. Request asset ownership, approved access route, monitoring, recovery and safety coordination.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify risk and propose review questions without touching any real network.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of ot and ics cybersecurity awareness?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about ot and ics cybersecurity awareness?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about ot and ics cybersecurity awareness be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating ot and ics cybersecurity awareness?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in ot and ics cybersecurity awareness?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning ot and ics cybersecurity awareness?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for ot and ics cybersecurity awareness. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on ot and ics cybersecurity awareness contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about ot and ics cybersecurity awareness?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in ot and ics cybersecurity awareness?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Information security management systems

Learning objectives

- Explain information security management systems, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Information security management systems
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. An ISMS establishes governance for protecting information through risk management, responsibilities, controls and continual improvement. Define scope, interested parties and information assets before selecting controls. This is original awareness content informed by the supplied implementation proposal.

Decision logic. Connect risk treatment, documented decisions, monitoring, audit and corrective action. Obtain licensed standards for formal implementation and verify external certification requirements with the relevant body. This course does not award PECB or ISO certification and reproduces no official examination.

Worked example. A fictional academy protects student records through defined access, retention and incident responsibilities.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft an ISMS scope, three risks and a treatment review plan.

Model answer guide. Require risk owners, justified treatments, evidence, review and escalation; distinguish organisational certification from personal credentials.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draft an ISMS scope, three risks and a treatment review plan.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of information security management systems?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about information security management systems?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about information security management systems be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating information security management systems?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in information security management systems?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning information security management systems?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for information security management systems. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on information security management systems contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about information security management systems?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in information security management systems?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Digital Oilfield, Automation and OT Cybersecurity Awareness: Work Planning

Learning objectives

- Explain digital oilfield, automation and ot cybersecurity awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Digital Oilfield, Automation and OT Cybersecurity Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Digital Oilfield, Automation and OT Cybersecurity Awareness: Work Planning describes a practical part of Digital Oilfield, Automation and OT Cybersecurity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for digital oilfield, automation and ot cybersecurity awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans digital oilfield, automation and ot cybersecurity awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of digital oilfield, automation and ot cybersecurity awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about digital oilfield, automation and ot cybersecurity awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about digital oilfield, automation and ot cybersecurity awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating digital oilfield, automation and ot cybersecurity awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in digital oilfield, automation and ot cybersecurity awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning digital oilfield, automation and ot cybersecurity awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for digital oilfield, automation and ot cybersecurity awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on digital oilfield, automation and ot cybersecurity awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about digital oilfield, automation and ot cybersecurity awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in digital oilfield, automation and ot cybersecurity awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Digital Oilfield, Automation and OT Cybersecurity Awareness: Data and Performance

Learning objectives

- Explain digital oilfield, automation and ot cybersecurity awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Digital Oilfield, Automation and OT Cybersecurity Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Digital Oilfield, Automation and OT Cybersecurity Awareness: Data and Performance describes a practical part of Digital Oilfield, Automation and OT Cybersecurity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for digital oilfield, automation and ot cybersecurity awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans digital oilfield, automation and ot cybersecurity awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about digital oilfield, automation and ot cybersecurity awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for digital oilfield, automation and ot cybersecurity awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on digital oilfield, automation and ot cybersecurity awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in digital oilfield, automation and ot cybersecurity awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Digital Oilfield, Automation and OT Cybersecurity Awareness: Applied Case

Learning objectives

- Explain digital oilfield, automation and ot cybersecurity awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Digital Oilfield, Automation and OT Cybersecurity Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Digital Oilfield, Automation and OT Cybersecurity Awareness: Applied Case describes a practical part of Digital Oilfield, Automation and OT Cybersecurity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for digital oilfield, automation and ot cybersecurity awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans digital oilfield, automation and ot cybersecurity awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of digital oilfield, automation and ot cybersecurity awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about digital oilfield, automation and ot cybersecurity awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about digital oilfield, automation and ot cybersecurity awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating digital oilfield, automation and ot cybersecurity awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in digital oilfield, automation and ot cybersecurity awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning digital oilfield, automation and ot cybersecurity awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for digital oilfield, automation and ot cybersecurity awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on digital oilfield, automation and ot cybersecurity awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about digital oilfield, automation and ot cybersecurity awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in digital oilfield, automation and ot cybersecurity awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Digital Oilfield, Automation and OT Cybersecurity Awareness: Communication and Escalation

Learning objectives

- Explain digital oilfield, automation and ot cybersecurity awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Digital Oilfield, Automation and OT Cybersecurity Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Digital Oilfield, Automation and OT Cybersecurity Awareness: Communication and Escalation describes a practical part of Digital Oilfield, Automation and OT Cybersecurity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for digital oilfield, automation and ot cybersecurity awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans digital oilfield, automation and ot cybersecurity awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about digital oilfield, automation and ot cybersecurity awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for digital oilfield, automation and ot cybersecurity awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on digital oilfield, automation and ot cybersecurity awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in digital oilfield, automation and ot cybersecurity awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Digital Oilfield, Automation and OT Cybersecurity Awareness: Knowledge Check

Learning objectives

- Explain digital oilfield, automation and ot cybersecurity awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Digital Oilfield, Automation and OT Cybersecurity Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Digital Oilfield, Automation and OT Cybersecurity Awareness: Knowledge Check describes a practical part of Digital Oilfield, Automation and OT Cybersecurity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for digital oilfield, automation and ot cybersecurity awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans digital oilfield, automation and ot cybersecurity awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about digital oilfield, automation and ot cybersecurity awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for digital oilfield, automation and ot cybersecurity awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on digital oilfield, automation and ot cybersecurity awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in digital oilfield, automation and ot cybersecurity awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Digital Oilfield, Automation and OT Cybersecurity Awareness: Competence Review

Learning objectives

- Explain digital oilfield, automation and ot cybersecurity awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Digital Oilfield, Automation and OT Cybersecurity Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Digital Oilfield, Automation and OT Cybersecurity Awareness

Teaching notes

Teaching notes

Core explanation. Digital Oilfield, Automation and OT Cybersecurity Awareness: Competence Review describes a practical part of Digital Oilfield, Automation and OT Cybersecurity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for digital oilfield, automation and ot cybersecurity awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans digital oilfield, automation and ot cybersecurity awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for digital oilfield, automation and ot cybersecurity awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of digital oilfield, automation and ot cybersecurity awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about digital oilfield, automation and ot cybersecurity awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about digital oilfield, automation and ot cybersecurity awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating digital oilfield, automation and ot cybersecurity awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in digital oilfield, automation and ot cybersecurity awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning digital oilfield, automation and ot cybersecurity awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for digital oilfield, automation and ot cybersecurity awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on digital oilfield, automation and ot cybersecurity awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about digital oilfield, automation and ot cybersecurity awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in digital oilfield, automation and ot cybersecurity awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-018 | Careers in Namibia\u2019s Emerging Oil and Gas Industry

Level: SC | Duration: 1 days | Audience: Learners appropriate to the stated programme level

1 days SC programme focused on Careers in Namibia\u2019s Emerging Oil and Gas Industry, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Careers in Namibia\u2019s Emerging Oil and Gas Industry.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Careers and learning pathways

Learning objectives

- Explain careers and learning pathways, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers and learning pathways
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Map occupations to tasks, entry foundations, training, experience and employer requirements. Technical, maritime, commercial and vocational routes have different prerequisites. A short course can support awareness without qualifying a person for every offshore role.

Decision logic. Use verified provider and employer information for actual choices. Identify transferable skills and gaps without guaranteeing jobs or salaries. Include realistic time, costs, practical access and assessment requirements. Recognise prior learning through an approved process rather than informal exemption.

Worked example. A finance graduate and an electrical apprentice need different pathways into energy work.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a personal learning plan with evidence, milestones and two realistic role options.

Model answer guide. Match prior learning to role requirements and distinguish awareness, competence and external certification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a personal learning plan with evidence, milestones and two realistic role options.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers and learning pathways?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers and learning pathways?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers and learning pathways be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers and learning pathways?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers and learning pathways?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers and learning pathways?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers and learning pathways. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers and learning pathways contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers and learning pathways?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers and learning pathways?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Petroleum value chain

Learning objectives

- Explain petroleum value chain, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum value chain
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Exploration tests whether a petroleum system exists; appraisal narrows uncertainty; development creates wells and facilities; production converts reservoir fluids into saleable streams. Transport, refining and marketing connect production to users. Show each interface on a reservoir-to-customer diagram, including ownership and custody transfer.

Decision logic. A discovery is evidence of hydrocarbons, not proof of an investable project. Commerciality also requires recoverable volume, deliverability, market access, finance, permits and acceptable impacts. Ask learners which organisation owns each decision and which evidence is still missing.

Worked example. A fictional discovery has oil samples but no flow test. Its next decision is appraisal, not a promised first-production date.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draw seven value-chain stages and identify one supplier opportunity and one evidence requirement at each.

Model answer guide. Accept stage-specific evidence and distinguish sampling from sustained deliverability. Reject guaranteed employment or production dates.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draw seven value-chain stages and identify one supplier opportunity and one evidence requirement at each.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum value chain?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum value chain?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum value chain be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum value chain?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum value chain?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum value chain?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum value chain. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum value chain contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum value chain?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum value chain?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Workplace competence and assessment evidence

Learning objectives

- Explain workplace competence and assessment evidence, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Workplace competence and assessment evidence
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Competence requires consistent performance against defined criteria in relevant conditions. Attendance and quiz scores are limited evidence. Use observation, work products, questioning and authenticated logbooks, with reasonable adjustments that preserve the required standard.

Decision logic. Assessors must be competent and authorised under the adopted scheme. Safety-critical steps are mandatory, not averaged away by other marks. Record not-yet-competent outcomes, feedback, remediation and reassessment. No national unit-standard equivalence is claimed without formal mapping and approval.

Worked example. A learner answers every question correctly but cannot identify an unsafe equipment condition during observation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Plan two supervised observations and a logbook authentication method.

Model answer guide. Require task conditions, critical criteria, assessor signature, evidence and reassessment route.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Plan two supervised observations and a logbook authentication method.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of workplace competence and assessment evidence?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about workplace competence and assessment evidence?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about workplace competence and assessment evidence be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating workplace competence and assessment evidence?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in workplace competence and assessment evidence?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning workplace competence and assessment evidence?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for workplace competence and assessment evidence. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on workplace competence and assessment evidence contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about workplace competence and assessment evidence?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in workplace competence and assessment evidence?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Local content and national value

Learning objectives

- Explain local content and national value, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Local content and national value
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Local content can include employment, skills, supplier participation and durable industrial capability. Distinguish domestic ownership, local expenditure and actual value retained locally. A purchase from a locally registered importer may contain little domestic production.

Decision logic. Measure outcomes with a defined boundary, baseline and evidence. Avoid assuming a proposed policy target is current law. Supplier development must protect quality and safety while building realistic capacity and fair access.

Worked example. A fictional USD 1 million local invoice contains USD 850,000 imported equipment and USD 150,000 local services.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the local-service share and propose more meaningful indicators.

Model answer guide. Fifteen percent in this simplified boundary; employment, skills and retained value need separate evidence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the local-service share and propose more meaningful indicators.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of local content and national value?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about local content and national value?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about local content and national value be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating local content and national value?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in local content and national value?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning local content and national value?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for local content and national value. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on local content and national value contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about local content and national value?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in local content and national value?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Careers in Namibia\u2019s Emerging Oil and Gas Industry: Work Planning

Learning objectives

- Explain careers in namibia\u2019s emerging oil and gas industry: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers in Namibia\u2019s Emerging Oil and Gas Industry: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Careers in Namibia\u2019s Emerging Oil and Gas Industry: Work Planning describes a practical part of Careers in Namibia\u2019s Emerging Oil and Gas Industry. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for careers in namibia\u2019s emerging oil and gas industry: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans careers in namibia\u2019s emerging oil and gas industry: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers in namibia\u2019s emerging oil and gas industry: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers in namibia\u2019s emerging oil and gas industry: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers in namibia\u2019s emerging oil and gas industry: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers in namibia\u2019s emerging oil and gas industry: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers in namibia\u2019s emerging oil and gas industry: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers in namibia\u2019s emerging oil and gas industry: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers in namibia\u2019s emerging oil and gas industry: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers in namibia\u2019s emerging oil and gas industry: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers in namibia\u2019s emerging oil and gas industry: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers in namibia\u2019s emerging oil and gas industry: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Careers in Namibia\u2019s Emerging Oil and Gas Industry: Data and Performance

Learning objectives

- Explain careers in namibia\u2019s emerging oil and gas industry: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers in Namibia\u2019s Emerging Oil and Gas Industry: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Careers in Namibia\u2019s Emerging Oil and Gas Industry: Data and Performance describes a practical part of Careers in Namibia\u2019s Emerging Oil and Gas Industry. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for careers in namibia\u2019s emerging oil and gas industry: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans careers in namibia\u2019s emerging oil and gas industry: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers in namibia\u2019s emerging oil and gas industry: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers in namibia\u2019s emerging oil and gas industry: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers in namibia\u2019s emerging oil and gas industry: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers in namibia\u2019s emerging oil and gas industry: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Careers in Namibia\u2019s Emerging Oil and Gas Industry: Applied Case

Learning objectives

- Explain careers in namibia\u2019s emerging oil and gas industry: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers in Namibia\u2019s Emerging Oil and Gas Industry: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Careers in Namibia\u2019s Emerging Oil and Gas Industry: Applied Case describes a practical part of Careers in Namibia\u2019s Emerging Oil and Gas Industry. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for careers in namibia\u2019s emerging oil and gas industry: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans careers in namibia\u2019s emerging oil and gas industry: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers in namibia\u2019s emerging oil and gas industry: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers in namibia\u2019s emerging oil and gas industry: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers in namibia\u2019s emerging oil and gas industry: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers in namibia\u2019s emerging oil and gas industry: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers in namibia\u2019s emerging oil and gas industry: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers in namibia\u2019s emerging oil and gas industry: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers in namibia\u2019s emerging oil and gas industry: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers in namibia\u2019s emerging oil and gas industry: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers in namibia\u2019s emerging oil and gas industry: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers in namibia\u2019s emerging oil and gas industry: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Careers in Namibia\u2019s Emerging Oil and Gas Industry: Communication and Escalation

Learning objectives

- Explain careers in namibia\u2019s emerging oil and gas industry: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers in Namibia\u2019s Emerging Oil and Gas Industry: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Careers in Namibia\u2019s Emerging Oil and Gas Industry: Communication and Escalation describes a practical part of Careers in Namibia\u2019s Emerging Oil and Gas Industry. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for careers in namibia\u2019s emerging oil and gas industry: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans careers in namibia\u2019s emerging oil and gas industry: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers in namibia\u2019s emerging oil and gas industry: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers in namibia\u2019s emerging oil and gas industry: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers in namibia\u2019s emerging oil and gas industry: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers in namibia\u2019s emerging oil and gas industry: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Careers in Namibia\u2019s Emerging Oil and Gas Industry: Knowledge Check

Learning objectives

- Explain careers in namibia\u2019s emerging oil and gas industry: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers in Namibia\u2019s Emerging Oil and Gas Industry: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Careers in Namibia\u2019s Emerging Oil and Gas Industry: Knowledge Check describes a practical part of Careers in Namibia\u2019s Emerging Oil and Gas Industry. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for careers in namibia\u2019s emerging oil and gas industry: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans careers in namibia\u2019s emerging oil and gas industry: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers in namibia\u2019s emerging oil and gas industry: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers in namibia\u2019s emerging oil and gas industry: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers in namibia\u2019s emerging oil and gas industry: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers in namibia\u2019s emerging oil and gas industry: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Careers in Namibia\u2019s Emerging Oil and Gas Industry: Competence Review

Learning objectives

- Explain careers in namibia\u2019s emerging oil and gas industry: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Careers in Namibia\u2019s Emerging Oil and Gas Industry: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Careers in Namibia\u2019s Emerging Oil and Gas Industry

Teaching notes

Teaching notes

Core explanation. Careers in Namibia\u2019s Emerging Oil and Gas Industry: Competence Review describes a practical part of Careers in Namibia\u2019s Emerging Oil and Gas Industry. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for careers in namibia\u2019s emerging oil and gas industry: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans careers in namibia\u2019s emerging oil and gas industry: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for careers in namibia\u2019s emerging oil and gas industry: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of careers in namibia\u2019s emerging oil and gas industry: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about careers in namibia\u2019s emerging oil and gas industry: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about careers in namibia\u2019s emerging oil and gas industry: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating careers in namibia\u2019s emerging oil and gas industry: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in careers in namibia\u2019s emerging oil and gas industry: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning careers in namibia\u2019s emerging oil and gas industry: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for careers in namibia\u2019s emerging oil and gas industry: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on careers in namibia\u2019s emerging oil and gas industry: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about careers in namibia\u2019s emerging oil and gas industry: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in careers in namibia\u2019s emerging oil and gas industry: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X01 | Introduction to Offshore Production Operations

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Introduction to Offshore Production Operations, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Introduction to Offshore Production Operations.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Introduction to Offshore Production Operations: Core Concepts

Learning objectives

- Explain introduction to offshore production operations: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Core Concepts describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: core concepts. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: core concepts while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: core concepts?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: core concepts?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: core concepts be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: core concepts?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: core concepts?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: core concepts?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: core concepts. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: core concepts contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: core concepts?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: core concepts?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Separation gas processing and utilities

Learning objectives

- Explain separation gas processing and utilities, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Separation gas processing and utilities
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Production fluids are separated into oil, gas and water streams before further treatment. Gas compression, dehydration, oil stabilisation and utilities support product specifications and safe operation. Explain process flow diagrams before introducing instrument-level drawings.

Decision logic. Mass balance links input, output and accumulation. A bottleneck in power, cooling or compression can limit oil production. Product quality, emissions and integrity constrain throughput. Actual settings and alarm responses must follow approved procedures.

Worked example. A separator receives 100 mass units/hour; 55 leave as oil, 20 as gas and 25 as water, with no accumulation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Reconcile a second balance with a missing stream and discuss measurement uncertainty.

Model answer guide. Total output plus accumulation must equal input; unexplained imbalance requires data checking.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Reconcile a second balance with a missing stream and discuss measurement uncertainty.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of separation gas processing and utilities?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about separation gas processing and utilities?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about separation gas processing and utilities be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating separation gas processing and utilities?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in separation gas processing and utilities?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning separation gas processing and utilities?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for separation gas processing and utilities. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on separation gas processing and utilities contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about separation gas processing and utilities?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in separation gas processing and utilities?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Offshore hazards and safe working

Learning objectives

- Explain offshore hazards and safe working, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore hazards and safe working
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Hazards include moving machinery, hydrocarbons, pressure, electricity, weather, dropped objects and human exposure. Risk depends on likelihood and consequence in a defined task. Hazard recognition is the beginning of control, not permission to work.

Decision logic. Use elimination, substitution and engineered controls before relying only on procedures or PPE. Include manual handling and hazardous substances from the IMIST source themes. Train learners to stop and escalate unsafe conditions and remain within their authority.

Worked example. A walkway crosses a lifting zone. A helmet alone does not remove dropped-load exposure.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Model answer guide. Prefer segregation or changed routing over PPE alone; identify responsible verification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore hazards and safe working?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore hazards and safe working?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore hazards and safe working be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore hazards and safe working?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore hazards and safe working?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore hazards and safe working?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore hazards and safe working. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore hazards and safe working contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore hazards and safe working?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore hazards and safe working?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review two fictional permits and identify interface conflicts and suspension triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of permit to work isolation and simops?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about permit to work isolation and simops?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about permit to work isolation and simops be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating permit to work isolation and simops?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in permit to work isolation and simops?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning permit to work isolation and simops?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for permit to work isolation and simops. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on permit to work isolation and simops contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about permit to work isolation and simops?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in permit to work isolation and simops?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Introduction to Offshore Production Operations: Work Planning

Learning objectives

- Explain introduction to offshore production operations: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Work Planning describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Introduction to Offshore Production Operations: Data and Performance

Learning objectives

- Explain introduction to offshore production operations: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Data and Performance describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Introduction to Offshore Production Operations: Applied Case

Learning objectives

- Explain introduction to offshore production operations: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Applied Case describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Introduction to Offshore Production Operations: Communication and Escalation

Learning objectives

- Explain introduction to offshore production operations: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Communication and Escalation describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Introduction to Offshore Production Operations: Knowledge Check

Learning objectives

- Explain introduction to offshore production operations: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Knowledge Check describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Introduction to Offshore Production Operations: Competence Review

Learning objectives

- Explain introduction to offshore production operations: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Offshore Production Operations: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Offshore Production Operations

Teaching notes

Teaching notes

Core explanation. Introduction to Offshore Production Operations: Competence Review describes a practical part of Introduction to Offshore Production Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to offshore production operations: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to offshore production operations: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to offshore production operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to offshore production operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to offshore production operations: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to offshore production operations: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to offshore production operations: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to offshore production operations: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to offshore production operations: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to offshore production operations: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to offshore production operations: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to offshore production operations: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to offshore production operations: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to offshore production operations: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X02 | Flow Assurance for Offshore Facilities: Fundamentals

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Flow Assurance for Offshore Facilities: Fundamentals, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Flow Assurance for Offshore Facilities: Fundamentals.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Flow assurance

Learning objectives

- Explain flow assurance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow assurance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow assurance manages the ability to transport fluids through operating and transient conditions. Hydrates, wax, scale, corrosion and slugging can threaten performance. Explain the pressure-temperature-composition relationship qualitatively with a cooling pipeline sketch.

Decision logic. Assess startup, shutdown and restart as well as steady operation. Chemical treatment, insulation and operating strategies interact with facilities and environmental constraints. Classroom discussion does not prescribe inhibitor doses or live restart sequences.

Worked example. A pipeline flows normally when warm but cools during a long shutdown, changing restart risk.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a flow-assurance risk register for normal operation and shutdown.

Model answer guide. Include fluid data, thermal history, safeguards, monitoring and an authorised specialist review before restart.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a flow-assurance risk register for normal operation and shutdown.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Flow Assurance for Offshore Facilities: Fundamentals: Risk Controls

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: risk controls, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Risk Controls
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Risk Controls describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: risk controls. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: risk controls while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: risk controls?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: risk controls?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: risk controls be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: risk controls?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: risk controls?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: risk controls?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: risk controls. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: risk controls contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: risk controls?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: risk controls?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Corrosion mechanisms and damage management

Learning objectives

- Explain corrosion mechanisms and damage management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Corrosion mechanisms and damage management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Corrosion depends on materials, fluids, temperature, environment and operating history. Internal corrosion, external marine corrosion and localised attack can require different controls. Explain general thinning versus pitting and why average thickness may hide local damage.

Decision logic. Identify credible damage mechanisms before selecting inspection or mitigation. Coatings, inhibitors, material selection and cathodic protection have different applications. Competent engineers establish acceptance criteria; classroom measurements never approve equipment for continued service.

Worked example. A plate's average thickness appears acceptable but a local pit is much deeper.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional damage map and propose a specialist inspection scope.

Model answer guide. Address local severity, mechanism, inspection coverage and operating conditions rather than average thickness alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional damage map and propose a specialist inspection scope.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of corrosion mechanisms and damage management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about corrosion mechanisms and damage management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about corrosion mechanisms and damage management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating corrosion mechanisms and damage management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in corrosion mechanisms and damage management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning corrosion mechanisms and damage management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for corrosion mechanisms and damage management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on corrosion mechanisms and damage management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about corrosion mechanisms and damage management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in corrosion mechanisms and damage management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Flow Assurance for Offshore Facilities: Fundamentals: Evidence and Decision Gates

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Evidence and Decision Gates describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Integrated reservoir management

Learning objectives

- Explain integrated reservoir management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Integrated reservoir management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Reservoir management links surveillance, models, wells, facilities and economics to an agreed objective. Define decision triggers and data owners. A model is useful when it helps choose an action and exposes uncertainty, not simply because it has many cells.

Decision logic. Use a closed learning cycle: predict, measure, compare, diagnose and revise. History matching can be non-unique, so retain plausible alternatives and test decisions against them. Integrate subsurface and operations teams when reviewing constraints and new evidence.

Worked example. Measured water breakthrough is earlier than predicted. Review connectivity and completion assumptions before merely adjusting a curve.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a surveillance plan with three measurements and associated decision triggers.

Model answer guide. Each measurement must connect to a management choice, owner and review frequency.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a surveillance plan with three measurements and associated decision triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of integrated reservoir management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about integrated reservoir management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about integrated reservoir management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating integrated reservoir management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in integrated reservoir management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning integrated reservoir management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for integrated reservoir management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on integrated reservoir management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about integrated reservoir management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in integrated reservoir management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Flow Assurance for Offshore Facilities: Fundamentals: Data and Performance

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Data and Performance describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Flow Assurance for Offshore Facilities: Fundamentals: Applied Case

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Applied Case describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Flow Assurance for Offshore Facilities: Fundamentals: Communication and Escalation

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Communication and Escalation describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Flow Assurance for Offshore Facilities: Fundamentals: Knowledge Check

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Knowledge Check describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Flow Assurance for Offshore Facilities: Fundamentals: Competence Review

Learning objectives

- Explain flow assurance for offshore facilities: fundamentals: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Flow Assurance for Offshore Facilities: Fundamentals: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Flow Assurance for Offshore Facilities: Fundamentals

Teaching notes

Teaching notes

Core explanation. Flow Assurance for Offshore Facilities: Fundamentals: Competence Review describes a practical part of Flow Assurance for Offshore Facilities: Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for flow assurance for offshore facilities: fundamentals: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans flow assurance for offshore facilities: fundamentals: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for flow assurance for offshore facilities: fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for flow assurance for offshore facilities: fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of flow assurance for offshore facilities: fundamentals: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about flow assurance for offshore facilities: fundamentals: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about flow assurance for offshore facilities: fundamentals: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating flow assurance for offshore facilities: fundamentals: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in flow assurance for offshore facilities: fundamentals: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning flow assurance for offshore facilities: fundamentals: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for flow assurance for offshore facilities: fundamentals: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on flow assurance for offshore facilities: fundamentals: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about flow assurance for offshore facilities: fundamentals: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in flow assurance for offshore facilities: fundamentals: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X03 | Pipeline Operations and Integrity Awareness

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Pipeline Operations and Integrity Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Pipeline Operations and Integrity Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Pipeline integrity

Learning objectives

- Explain pipeline integrity, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline integrity
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline integrity links design, materials, operation, corrosion control, inspection, damage assessment and repair. Threats include corrosion, fatigue, third-party damage and geohazards. Explain how service and environment influence the threat register.

Decision logic. Use condition evidence and engineering assessment to prioritise action. A pressure rating does not address all degradation or installation damage. All operating limits, repair decisions and fitness-for-service conclusions require competent approval.

Worked example. A route section crosses unstable seabed even though corrosion readings are low.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a pipeline threat register including non-corrosion threats.

Model answer guide. Include route movement, spans, fatigue, material condition and monitoring limitations.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a pipeline threat register including non-corrosion threats.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline integrity?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline integrity?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline integrity be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline integrity?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline integrity?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline integrity?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline integrity. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline integrity contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline integrity?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline integrity?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Corrosion mechanisms and damage management

Learning objectives

- Explain corrosion mechanisms and damage management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Corrosion mechanisms and damage management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Corrosion depends on materials, fluids, temperature, environment and operating history. Internal corrosion, external marine corrosion and localised attack can require different controls. Explain general thinning versus pitting and why average thickness may hide local damage.

Decision logic. Identify credible damage mechanisms before selecting inspection or mitigation. Coatings, inhibitors, material selection and cathodic protection have different applications. Competent engineers establish acceptance criteria; classroom measurements never approve equipment for continued service.

Worked example. A plate's average thickness appears acceptable but a local pit is much deeper.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional damage map and propose a specialist inspection scope.

Model answer guide. Address local severity, mechanism, inspection coverage and operating conditions rather than average thickness alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional damage map and propose a specialist inspection scope.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of corrosion mechanisms and damage management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about corrosion mechanisms and damage management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about corrosion mechanisms and damage management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating corrosion mechanisms and damage management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in corrosion mechanisms and damage management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning corrosion mechanisms and damage management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for corrosion mechanisms and damage management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on corrosion mechanisms and damage management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about corrosion mechanisms and damage management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in corrosion mechanisms and damage management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Inspection planning and technologies

Learning objectives

- Explain inspection planning and technologies, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Inspection planning and technologies
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Inspection seeks evidence of condition and degradation using methods fit for the expected damage. Coverage, access, resolution and operator competence affect confidence. Distinguish visual survey, thickness measurement and detailed examination.

Decision logic. Start with the question being answered, then select method and locations. A clean report from limited coverage does not prove the whole asset is defect-free. Record limitations, traceability, findings and required engineering disposition.

Worked example. An external visual survey cannot establish internal wall thickness beneath insulation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Design an inspection brief with objective, coverage, method and reporting limits.

Model answer guide. Match technique to mechanism and state what cannot be concluded.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Design an inspection brief with objective, coverage, method and reporting limits.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of inspection planning and technologies?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about inspection planning and technologies?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about inspection planning and technologies be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating inspection planning and technologies?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in inspection planning and technologies?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning inspection planning and technologies?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for inspection planning and technologies. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on inspection planning and technologies contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about inspection planning and technologies?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in inspection planning and technologies?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Pipeline Operations and Integrity Awareness: Evidence and Decision Gates

Learning objectives

- Explain pipeline operations and integrity awareness: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline Operations and Integrity Awareness: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline Operations and Integrity Awareness: Evidence and Decision Gates describes a practical part of Pipeline Operations and Integrity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for pipeline operations and integrity awareness: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans pipeline operations and integrity awareness: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for pipeline operations and integrity awareness: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for pipeline operations and integrity awareness: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline operations and integrity awareness: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline operations and integrity awareness: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline operations and integrity awareness: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline operations and integrity awareness: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline operations and integrity awareness: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline operations and integrity awareness: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline operations and integrity awareness: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline operations and integrity awareness: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline operations and integrity awareness: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline operations and integrity awareness: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Emergency preparedness and command

Learning objectives

- Explain emergency preparedness and command, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Emergency preparedness and command
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Emergency planning identifies credible scenarios, warning, command, communications, muster, evacuation, medical support and external interfaces. Responsibilities and fallback communications should be understood before an event. Awareness differs from emergency-team qualification.

Decision logic. Use tabletop exercises with timed injects, observer records and debrief actions. Test loss of communications or unavailable resources. Never simulate an actual distress call or activate real emergency equipment without authorised arrangements.

Worked example. A fictional offshore incident interrupts the primary communication link during a weather restriction.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Run a tabletop with incident controller, operations, logistics and communications roles.

Model answer guide. Prioritise people, establish command, verify information, use planned backup channels and document decisions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Run a tabletop with incident controller, operations, logistics and communications roles.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of emergency preparedness and command?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about emergency preparedness and command?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about emergency preparedness and command be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating emergency preparedness and command?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in emergency preparedness and command?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning emergency preparedness and command?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for emergency preparedness and command. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on emergency preparedness and command contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about emergency preparedness and command?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in emergency preparedness and command?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Pipeline Operations and Integrity Awareness: Data and Performance

Learning objectives

- Explain pipeline operations and integrity awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline Operations and Integrity Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline Operations and Integrity Awareness: Data and Performance describes a practical part of Pipeline Operations and Integrity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for pipeline operations and integrity awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans pipeline operations and integrity awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for pipeline operations and integrity awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for pipeline operations and integrity awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline operations and integrity awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline operations and integrity awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline operations and integrity awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline operations and integrity awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline operations and integrity awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline operations and integrity awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline operations and integrity awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline operations and integrity awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline operations and integrity awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline operations and integrity awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Pipeline Operations and Integrity Awareness: Applied Case

Learning objectives

- Explain pipeline operations and integrity awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline Operations and Integrity Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline Operations and Integrity Awareness: Applied Case describes a practical part of Pipeline Operations and Integrity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for pipeline operations and integrity awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans pipeline operations and integrity awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for pipeline operations and integrity awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for pipeline operations and integrity awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline operations and integrity awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline operations and integrity awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline operations and integrity awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline operations and integrity awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline operations and integrity awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline operations and integrity awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline operations and integrity awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline operations and integrity awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline operations and integrity awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline operations and integrity awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Pipeline Operations and Integrity Awareness: Communication and Escalation

Learning objectives

- Explain pipeline operations and integrity awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline Operations and Integrity Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline Operations and Integrity Awareness: Communication and Escalation describes a practical part of Pipeline Operations and Integrity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for pipeline operations and integrity awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans pipeline operations and integrity awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for pipeline operations and integrity awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for pipeline operations and integrity awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline operations and integrity awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline operations and integrity awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline operations and integrity awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline operations and integrity awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline operations and integrity awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline operations and integrity awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline operations and integrity awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline operations and integrity awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline operations and integrity awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline operations and integrity awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Pipeline Operations and Integrity Awareness: Knowledge Check

Learning objectives

- Explain pipeline operations and integrity awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline Operations and Integrity Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline Operations and Integrity Awareness: Knowledge Check describes a practical part of Pipeline Operations and Integrity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for pipeline operations and integrity awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans pipeline operations and integrity awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for pipeline operations and integrity awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for pipeline operations and integrity awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline operations and integrity awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline operations and integrity awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline operations and integrity awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline operations and integrity awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline operations and integrity awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline operations and integrity awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline operations and integrity awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline operations and integrity awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline operations and integrity awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline operations and integrity awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Pipeline Operations and Integrity Awareness: Competence Review

Learning objectives

- Explain pipeline operations and integrity awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Pipeline Operations and Integrity Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Pipeline Operations and Integrity Awareness

Teaching notes

Teaching notes

Core explanation. Pipeline Operations and Integrity Awareness: Competence Review describes a practical part of Pipeline Operations and Integrity Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for pipeline operations and integrity awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans pipeline operations and integrity awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for pipeline operations and integrity awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for pipeline operations and integrity awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of pipeline operations and integrity awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about pipeline operations and integrity awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about pipeline operations and integrity awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating pipeline operations and integrity awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in pipeline operations and integrity awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning pipeline operations and integrity awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for pipeline operations and integrity awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on pipeline operations and integrity awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about pipeline operations and integrity awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in pipeline operations and integrity awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X04 | Offshore Commissioning and Start-up Awareness

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Offshore Commissioning and Start-up Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Offshore Commissioning and Start-up Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Construction hook up and commissioning

Learning objectives

- Explain construction hook up and commissioning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Construction hook up and commissioning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Mechanical completion confirms construction against defined scope; commissioning demonstrates functional readiness; startup introduces operational service under approved controls. These milestones require different evidence. Introduce systemisation, punch lists and handover boundaries.

Decision logic. Readiness is demonstrated through test records, resolved defects, procedures, trained personnel and accepted interfaces. Schedule pressure does not justify silently transferring incomplete systems. Brownfield work must address interactions with operating equipment and simultaneous activities.

Worked example. A system is mechanically complete but its cause-and-effect tests remain outstanding.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Classify a fictional punch list by startup consequence and propose handover conditions.

Model answer guide. Identify safety-critical tests and documented acceptance; mechanical completion alone is insufficient.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Classify a fictional punch list by startup consequence and propose handover conditions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of construction hook up and commissioning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about construction hook up and commissioning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about construction hook up and commissioning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating construction hook up and commissioning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in construction hook up and commissioning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning construction hook up and commissioning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for construction hook up and commissioning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on construction hook up and commissioning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about construction hook up and commissioning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in construction hook up and commissioning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Production readiness and marine assurance

Learning objectives

- Explain production readiness and marine assurance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Production readiness and marine assurance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Operational readiness brings people, procedures, equipment, spares, assurance and emergency arrangements together before service. Marine assurance addresses vessel capability, condition and interfaces for the intended task. Treat readiness as evidence-based acceptance.

Decision logic. Use independent challenge and clear ownership of exceptions. Operational teams must accept the asset with known limitations and an approved response. A dashboard with all green cells is unreliable if supporting records are missing or outdated.

Worked example. A readiness review shows trained staff but no tested spare-parts supply route for a critical pump.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a readiness dossier and a conditions-to-close register.

Model answer guide. Include maintenance, spares, competence, emergency drills and marine interfaces with accountable owners.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a readiness dossier and a conditions-to-close register.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of production readiness and marine assurance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about production readiness and marine assurance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about production readiness and marine assurance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating production readiness and marine assurance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in production readiness and marine assurance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning production readiness and marine assurance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for production readiness and marine assurance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on production readiness and marine assurance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about production readiness and marine assurance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in production readiness and marine assurance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Process safety fundamentals

Learning objectives

- Explain process safety fundamentals, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Process safety fundamentals
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Process safety prevents major loss-of-containment and energy-release events. Personal injury rates do not measure every major-accident risk. Explain hazard, initiating event, preventive barriers, mitigative barriers and consequences using a bowtie.

Decision logic. Assess barrier performance standards, degradation and independent assurance. HAZID, HAZOP and other reviews have different purposes and need competent facilitation. Do not call a classroom checklist a certified safety study. Track temporary changes and overdue critical actions.

Worked example. An asset reports no slips but has several overdue safety-critical tests; major-accident assurance remains weak.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a bowtie for a fictional separator loss of containment.

Model answer guide. Separate prevention and mitigation and assign barrier evidence, owner and degradation response.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a bowtie for a fictional separator loss of containment.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of process safety fundamentals?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about process safety fundamentals?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about process safety fundamentals be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating process safety fundamentals?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in process safety fundamentals?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning process safety fundamentals?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for process safety fundamentals. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on process safety fundamentals contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about process safety fundamentals?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in process safety fundamentals?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review two fictional permits and identify interface conflicts and suspension triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of permit to work isolation and simops?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about permit to work isolation and simops?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about permit to work isolation and simops be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating permit to work isolation and simops?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in permit to work isolation and simops?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning permit to work isolation and simops?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for permit to work isolation and simops. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on permit to work isolation and simops contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about permit to work isolation and simops?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in permit to work isolation and simops?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Offshore Commissioning and Start-up Awareness: Work Planning

Learning objectives

- Explain offshore commissioning and start-up awareness: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Commissioning and Start-up Awareness: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Commissioning and Start-up Awareness: Work Planning describes a practical part of Offshore Commissioning and Start-up Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore commissioning and start-up awareness: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore commissioning and start-up awareness: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore commissioning and start-up awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore commissioning and start-up awareness: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore commissioning and start-up awareness: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore commissioning and start-up awareness: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore commissioning and start-up awareness: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore commissioning and start-up awareness: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore commissioning and start-up awareness: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore commissioning and start-up awareness: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore commissioning and start-up awareness: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore commissioning and start-up awareness: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore commissioning and start-up awareness: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore commissioning and start-up awareness: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Offshore Commissioning and Start-up Awareness: Data and Performance

Learning objectives

- Explain offshore commissioning and start-up awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Commissioning and Start-up Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Commissioning and Start-up Awareness: Data and Performance describes a practical part of Offshore Commissioning and Start-up Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore commissioning and start-up awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore commissioning and start-up awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore commissioning and start-up awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore commissioning and start-up awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore commissioning and start-up awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore commissioning and start-up awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore commissioning and start-up awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore commissioning and start-up awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore commissioning and start-up awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore commissioning and start-up awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore commissioning and start-up awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore commissioning and start-up awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore commissioning and start-up awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore commissioning and start-up awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Offshore Commissioning and Start-up Awareness: Applied Case

Learning objectives

- Explain offshore commissioning and start-up awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Commissioning and Start-up Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Commissioning and Start-up Awareness: Applied Case describes a practical part of Offshore Commissioning and Start-up Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore commissioning and start-up awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore commissioning and start-up awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore commissioning and start-up awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore commissioning and start-up awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore commissioning and start-up awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore commissioning and start-up awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore commissioning and start-up awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore commissioning and start-up awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore commissioning and start-up awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore commissioning and start-up awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore commissioning and start-up awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore commissioning and start-up awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore commissioning and start-up awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore commissioning and start-up awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Offshore Commissioning and Start-up Awareness: Communication and Escalation

Learning objectives

- Explain offshore commissioning and start-up awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Commissioning and Start-up Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Commissioning and Start-up Awareness: Communication and Escalation describes a practical part of Offshore Commissioning and Start-up Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore commissioning and start-up awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore commissioning and start-up awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore commissioning and start-up awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore commissioning and start-up awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore commissioning and start-up awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore commissioning and start-up awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore commissioning and start-up awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore commissioning and start-up awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore commissioning and start-up awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore commissioning and start-up awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore commissioning and start-up awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore commissioning and start-up awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore commissioning and start-up awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore commissioning and start-up awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Offshore Commissioning and Start-up Awareness: Knowledge Check

Learning objectives

- Explain offshore commissioning and start-up awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Commissioning and Start-up Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Commissioning and Start-up Awareness: Knowledge Check describes a practical part of Offshore Commissioning and Start-up Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore commissioning and start-up awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore commissioning and start-up awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore commissioning and start-up awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore commissioning and start-up awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore commissioning and start-up awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore commissioning and start-up awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore commissioning and start-up awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore commissioning and start-up awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore commissioning and start-up awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore commissioning and start-up awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore commissioning and start-up awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore commissioning and start-up awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore commissioning and start-up awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore commissioning and start-up awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Offshore Commissioning and Start-up Awareness: Competence Review

Learning objectives

- Explain offshore commissioning and start-up awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Commissioning and Start-up Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Commissioning and Start-up Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Commissioning and Start-up Awareness: Competence Review describes a practical part of Offshore Commissioning and Start-up Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore commissioning and start-up awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore commissioning and start-up awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore commissioning and start-up awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore commissioning and start-up awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore commissioning and start-up awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore commissioning and start-up awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore commissioning and start-up awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore commissioning and start-up awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore commissioning and start-up awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore commissioning and start-up awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore commissioning and start-up awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore commissioning and start-up awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore commissioning and start-up awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore commissioning and start-up awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X05 | Introduction to LNG and Gas Monetisation

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Introduction to LNG and Gas Monetisation, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Introduction to LNG and Gas Monetisation.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Atmospheric testing principles

Learning objectives

- Explain atmospheric testing principles, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Atmospheric testing principles
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Atmospheric testing considers oxygen, flammable and toxic hazards with instruments suitable for the task. Calibration, functional checks, sampling location, response time and sensor limitations affect validity. A reading is evidence at a place and time, not a permanent guarantee.

Decision logic. Use manufacturer-approved training and site procedures for actual instrument operation and acceptance limits. Teach why an unsuitable or failed sensor makes a reading unreliable. Do not prescribe entry thresholds or authorise testing competence through online questions alone.

Worked example. A detector displays zero but its required functional check failed. Zero cannot be trusted as proof of safe atmosphere.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Evaluate fictional detector records and decide whether evidence is fit for use.

Model answer guide. Reject unreliable evidence, withdraw the instrument according to procedure and escalate for approved replacement or review.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Evaluate fictional detector records and decide whether evidence is fit for use.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of atmospheric testing principles?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about atmospheric testing principles?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about atmospheric testing principles be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating atmospheric testing principles?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in atmospheric testing principles?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning atmospheric testing principles?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for atmospheric testing principles. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on atmospheric testing principles contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about atmospheric testing principles?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in atmospheric testing principles?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Introduction to LNG and Gas Monetisation: Risk Controls

Learning objectives

- Explain introduction to lng and gas monetisation: risk controls, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to LNG and Gas Monetisation: Risk Controls
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Introduction to LNG and Gas Monetisation: Risk Controls describes a practical part of Introduction to LNG and Gas Monetisation. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to lng and gas monetisation: risk controls. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to lng and gas monetisation: risk controls while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to lng and gas monetisation: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to lng and gas monetisation: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to lng and gas monetisation: risk controls?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to lng and gas monetisation: risk controls?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to lng and gas monetisation: risk controls be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to lng and gas monetisation: risk controls?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to lng and gas monetisation: risk controls?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to lng and gas monetisation: risk controls?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to lng and gas monetisation: risk controls. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to lng and gas monetisation: risk controls contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to lng and gas monetisation: risk controls?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to lng and gas monetisation: risk controls?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Global petroleum markets and price formation

Learning objectives

- Explain global petroleum markets and price formation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Global petroleum markets and price formation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Crude markets connect producers, traders, refiners and transport providers. Prices often reference benchmarks adjusted for quality, location and contract terms. OPEC is a producers' organisation, not a buyer qualification or an assurance of payment.

Decision logic. Separate physical delivery, price exposure and credit exposure. A high headline price can be offset by freight, quality discounts, finance or default risk. No company is labelled reliable without current due diligence and an approved transaction basis.

Worked example. Offer A is USD 75/barrel with USD 5 freight; offer B is USD 73 with USD 1 freight, before other terms.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare simplified netbacks and identify non-price checks.

Model answer guide. A gives 70 and B gives 72 USD/barrel; check credit, delivery, sanctions and quality terms before selection.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare simplified netbacks and identify non-price checks.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of global petroleum markets and price formation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about global petroleum markets and price formation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about global petroleum markets and price formation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating global petroleum markets and price formation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in global petroleum markets and price formation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning global petroleum markets and price formation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for global petroleum markets and price formation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on global petroleum markets and price formation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about global petroleum markets and price formation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in global petroleum markets and price formation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Petroleum economics overview

Learning objectives

- Explain petroleum economics overview, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum economics overview
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Economics translates technical scenarios into cash-flow consequences. Define decision alternatives and the perspective first, then estimate volume, timing, realised prices, costs, fiscal payments and closure. Compare value, affordability and exposure together.

Decision logic. Use transparent assumptions with units and source dates. A model's arithmetic can be correct while its development assumptions are implausible. Separate geological uncertainty, engineering uncertainty and market risk, and show which could reverse the decision.

Worked example. Two fictional projects have equal undiscounted cash surplus but one receives cash five years later.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Explain which may have greater present value and what additional information is required.

Model answer guide. Earlier comparable cash usually has greater present value at positive discount rates; require timing and risk details.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Explain which may have greater present value and what additional information is required.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum economics overview?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum economics overview?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum economics overview be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum economics overview?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum economics overview?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum economics overview?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum economics overview. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum economics overview contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum economics overview?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum economics overview?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Routes to shore and infrastructure choices

Learning objectives

- Explain routes to shore and infrastructure choices, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Routes to shore and infrastructure choices
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Compare direct offshore export, pipeline landfall, shuttle-to-terminal and domestic processing as distinct options. Oil reaching national waters does not imply physical landing or domestic refining. Geography, throughput, markets and permitting shape the choice.

Decision logic. Evaluate utilisation, distance, terrain, marine exposure, storage, product demand and lifecycle cost. Infrastructure can be shared only when commercial and technical interfaces align. Do not assert that any Namibian shore-landing route or commissioning date is confirmed.

Worked example. A low-volume early development may favour offshore export while a larger future cluster could change infrastructure economics.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Write a conditional shore-routing recommendation with trigger conditions.

Model answer guide. Separate current evidence from future options; include demand, volume, cost, environment and commercial access.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Write a conditional shore-routing recommendation with trigger conditions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of routes to shore and infrastructure choices?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about routes to shore and infrastructure choices?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about routes to shore and infrastructure choices be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating routes to shore and infrastructure choices?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in routes to shore and infrastructure choices?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning routes to shore and infrastructure choices?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for routes to shore and infrastructure choices. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on routes to shore and infrastructure choices contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about routes to shore and infrastructure choices?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in routes to shore and infrastructure choices?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Introduction to LNG and Gas Monetisation: Data and Performance

Learning objectives

- Explain introduction to lng and gas monetisation: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to LNG and Gas Monetisation: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Introduction to LNG and Gas Monetisation: Data and Performance describes a practical part of Introduction to LNG and Gas Monetisation. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to lng and gas monetisation: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to lng and gas monetisation: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to lng and gas monetisation: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to lng and gas monetisation: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to lng and gas monetisation: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to lng and gas monetisation: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to lng and gas monetisation: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to lng and gas monetisation: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to lng and gas monetisation: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to lng and gas monetisation: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to lng and gas monetisation: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to lng and gas monetisation: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to lng and gas monetisation: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to lng and gas monetisation: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Introduction to LNG and Gas Monetisation: Applied Case

Learning objectives

- Explain introduction to lng and gas monetisation: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to LNG and Gas Monetisation: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Introduction to LNG and Gas Monetisation: Applied Case describes a practical part of Introduction to LNG and Gas Monetisation. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to lng and gas monetisation: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to lng and gas monetisation: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to lng and gas monetisation: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to lng and gas monetisation: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to lng and gas monetisation: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to lng and gas monetisation: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to lng and gas monetisation: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to lng and gas monetisation: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to lng and gas monetisation: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to lng and gas monetisation: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to lng and gas monetisation: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to lng and gas monetisation: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to lng and gas monetisation: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to lng and gas monetisation: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Introduction to LNG and Gas Monetisation: Communication and Escalation

Learning objectives

- Explain introduction to lng and gas monetisation: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to LNG and Gas Monetisation: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Introduction to LNG and Gas Monetisation: Communication and Escalation describes a practical part of Introduction to LNG and Gas Monetisation. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to lng and gas monetisation: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to lng and gas monetisation: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to lng and gas monetisation: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to lng and gas monetisation: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to lng and gas monetisation: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to lng and gas monetisation: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to lng and gas monetisation: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to lng and gas monetisation: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to lng and gas monetisation: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to lng and gas monetisation: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to lng and gas monetisation: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to lng and gas monetisation: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to lng and gas monetisation: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to lng and gas monetisation: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Introduction to LNG and Gas Monetisation: Knowledge Check

Learning objectives

- Explain introduction to lng and gas monetisation: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to LNG and Gas Monetisation: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Introduction to LNG and Gas Monetisation: Knowledge Check describes a practical part of Introduction to LNG and Gas Monetisation. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to lng and gas monetisation: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to lng and gas monetisation: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to lng and gas monetisation: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to lng and gas monetisation: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to lng and gas monetisation: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to lng and gas monetisation: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to lng and gas monetisation: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to lng and gas monetisation: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to lng and gas monetisation: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to lng and gas monetisation: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to lng and gas monetisation: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to lng and gas monetisation: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to lng and gas monetisation: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to lng and gas monetisation: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Introduction to LNG and Gas Monetisation: Competence Review

Learning objectives

- Explain introduction to lng and gas monetisation: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to LNG and Gas Monetisation: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to LNG and Gas Monetisation

Teaching notes

Teaching notes

Core explanation. Introduction to LNG and Gas Monetisation: Competence Review describes a practical part of Introduction to LNG and Gas Monetisation. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to lng and gas monetisation: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to lng and gas monetisation: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to lng and gas monetisation: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to lng and gas monetisation: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to lng and gas monetisation: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to lng and gas monetisation: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to lng and gas monetisation: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to lng and gas monetisation: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to lng and gas monetisation: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to lng and gas monetisation: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to lng and gas monetisation: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to lng and gas monetisation: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to lng and gas monetisation: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to lng and gas monetisation: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X06 | Well Integrity and Barrier Awareness

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Well Integrity and Barrier Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Well Integrity and Barrier Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Well control and barrier management

Learning objectives

- Explain well control and barrier management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well control and barrier management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. A barrier system prevents unintended fluid flow. Show primary and secondary barrier envelopes and the need for defined performance standards. Recognising indications, reporting promptly and following the authorised well-control programme are distinct from being certified to operate equipment.

Decision logic. Teach barrier status with evidence, not equipment names alone. An installed component may be unavailable, untested or outside its operating envelope. Barrier changes require controlled review. No live well-control drill or shut-in sequence is prescribed by this awareness content.

Worked example. A component appears on the drawing, but its required test record is missing. Treat its verified availability as unresolved.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Construct a barrier-status register from a fictional well diagram.

Model answer guide. Record function, verification, owner, limitation and escalation; do not mark an unverified barrier healthy.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Construct a barrier-status register from a fictional well diagram.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well control and barrier management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well control and barrier management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well control and barrier management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well control and barrier management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well control and barrier management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well control and barrier management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well control and barrier management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well control and barrier management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well control and barrier management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well control and barrier management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Well architecture and drilling systems

Learning objectives

- Explain well architecture and drilling systems, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well architecture and drilling systems
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. A well connects the reservoir to the surface through a designed sequence of hole sections, casing and barriers. Explain measured depth versus true vertical depth, wellhead functions and interfaces with rig, marine riser and subsea equipment.

Decision logic. Well design starts with reservoir objectives, pressures, temperature, hazards and data uncertainty. Casing depth and equipment ratings require engineering calculations and independent review. This course uses diagrams and educational calculations, never an executable drilling programme.

Worked example. A deviated well has greater measured depth than vertical depth; fluid hydrostatic head relates to vertical depth.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Label a fictional well schematic and list five missing design inputs.

Model answer guide. Include pore pressure, fracture limits, temperature, geology and service conditions; distinguish equipment identification from design approval.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Label a fictional well schematic and list five missing design inputs.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well architecture and drilling systems?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well architecture and drilling systems?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well architecture and drilling systems be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well architecture and drilling systems?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well architecture and drilling systems?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well architecture and drilling systems?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well architecture and drilling systems. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well architecture and drilling systems contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well architecture and drilling systems?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well architecture and drilling systems?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Casing and cementing

Learning objectives

- Explain casing and cementing, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Casing and cementing
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. Casing supports the borehole and isolates formations; cement contributes to zonal isolation and structural support. Explain shoe, annulus, centralisation and displacement using a cutaway diagram. Distinguish design intent from evidence that a barrier has actually been established.

Decision logic. Assess cement placement uncertainty, contamination, losses and verification data together. Pressure tests and logs answer different questions and must be interpreted within an approved programme. Do not provide generic acceptance pressures or operational instructions that override site procedures.

Worked example. A calculated cement volume matches the plan, but returns indicate possible losses. Volume pumped alone cannot confirm isolation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional cementing quality dossier and identify acceptance evidence gaps.

Model answer guide. Require reconciled volumes, operational observations and appropriate verification reviewed by authorised engineers.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional cementing quality dossier and identify acceptance evidence gaps.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of casing and cementing?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about casing and cementing?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about casing and cementing be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating casing and cementing?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in casing and cementing?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning casing and cementing?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for casing and cementing. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on casing and cementing contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about casing and cementing?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in casing and cementing?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Well testing and pressure interpretation

Learning objectives

- Explain well testing and pressure interpretation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well testing and pressure interpretation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. A well test records flow and pressure response to infer reservoir and well behaviour. Explain drawdown, buildup, skin and boundary effects conceptually. Measurement resolution, rate history and test duration constrain interpretation.

Decision logic. Different models can fit limited data. Use derivative behaviour and independent geology to test models rather than declaring a unique answer. Short tests may not observe distant boundaries. Operational testing requires an approved programme and safety controls.

Worked example. A short buildup appears stable but has not investigated the reservoir boundary; connectivity remains uncertain.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional test summary and list claims supported and unsupported by it.

Model answer guide. Separate local mobility evidence from field-wide connectivity and long-term deliverability claims.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional test summary and list claims supported and unsupported by it.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well testing and pressure interpretation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well testing and pressure interpretation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well testing and pressure interpretation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well testing and pressure interpretation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well testing and pressure interpretation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well testing and pressure interpretation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well testing and pressure interpretation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well testing and pressure interpretation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well testing and pressure interpretation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well testing and pressure interpretation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Incident investigation and learning

Learning objectives

- Explain incident investigation and learning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Incident investigation and learning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. An investigation establishes what happened, why controls failed and how recurrence can be prevented. Preserve evidence, protect people and separate verified facts from assumptions. Near misses can reveal major weaknesses without actual harm.

Decision logic. Use a timeline and causal analysis to explore technical, human and organisational contributors. Avoid premature blame and unsupported conclusions. Actions should address causes, have accountable owners and be checked for effectiveness. Reporting follows applicable site and legal requirements.

Worked example. A dropped tool caused no injury, but exclusion-zone and securing controls were ineffective.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Analyse a fictional near miss and propose three causal actions.

Model answer guide. Include physical prevention, work-system improvements and verification, rather than retraining alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Analyse a fictional near miss and propose three causal actions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of incident investigation and learning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about incident investigation and learning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about incident investigation and learning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating incident investigation and learning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in incident investigation and learning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning incident investigation and learning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for incident investigation and learning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on incident investigation and learning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about incident investigation and learning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in incident investigation and learning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Well Integrity and Barrier Awareness: Data and Performance

Learning objectives

- Explain well integrity and barrier awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well Integrity and Barrier Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. Well Integrity and Barrier Awareness: Data and Performance describes a practical part of Well Integrity and Barrier Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for well integrity and barrier awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans well integrity and barrier awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for well integrity and barrier awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for well integrity and barrier awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well integrity and barrier awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well integrity and barrier awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well integrity and barrier awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well integrity and barrier awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well integrity and barrier awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well integrity and barrier awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well integrity and barrier awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well integrity and barrier awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well integrity and barrier awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well integrity and barrier awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Well Integrity and Barrier Awareness: Applied Case

Learning objectives

- Explain well integrity and barrier awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well Integrity and Barrier Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. Well Integrity and Barrier Awareness: Applied Case describes a practical part of Well Integrity and Barrier Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for well integrity and barrier awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans well integrity and barrier awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for well integrity and barrier awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for well integrity and barrier awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well integrity and barrier awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well integrity and barrier awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well integrity and barrier awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well integrity and barrier awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well integrity and barrier awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well integrity and barrier awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well integrity and barrier awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well integrity and barrier awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well integrity and barrier awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well integrity and barrier awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Well Integrity and Barrier Awareness: Communication and Escalation

Learning objectives

- Explain well integrity and barrier awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well Integrity and Barrier Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. Well Integrity and Barrier Awareness: Communication and Escalation describes a practical part of Well Integrity and Barrier Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for well integrity and barrier awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans well integrity and barrier awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for well integrity and barrier awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for well integrity and barrier awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well integrity and barrier awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well integrity and barrier awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well integrity and barrier awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well integrity and barrier awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well integrity and barrier awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well integrity and barrier awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well integrity and barrier awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well integrity and barrier awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well integrity and barrier awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well integrity and barrier awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Well Integrity and Barrier Awareness: Knowledge Check

Learning objectives

- Explain well integrity and barrier awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well Integrity and Barrier Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. Well Integrity and Barrier Awareness: Knowledge Check describes a practical part of Well Integrity and Barrier Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for well integrity and barrier awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans well integrity and barrier awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for well integrity and barrier awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for well integrity and barrier awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well integrity and barrier awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well integrity and barrier awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well integrity and barrier awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well integrity and barrier awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well integrity and barrier awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well integrity and barrier awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well integrity and barrier awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well integrity and barrier awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well integrity and barrier awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well integrity and barrier awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Well Integrity and Barrier Awareness: Competence Review

Learning objectives

- Explain well integrity and barrier awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Well Integrity and Barrier Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Well Integrity and Barrier Awareness

Teaching notes

Teaching notes

Core explanation. Well Integrity and Barrier Awareness: Competence Review describes a practical part of Well Integrity and Barrier Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for well integrity and barrier awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans well integrity and barrier awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for well integrity and barrier awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for well integrity and barrier awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of well integrity and barrier awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about well integrity and barrier awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about well integrity and barrier awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating well integrity and barrier awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in well integrity and barrier awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning well integrity and barrier awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for well integrity and barrier awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on well integrity and barrier awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about well integrity and barrier awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in well integrity and barrier awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X07 | Offshore Emergency Response and Incident Command

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Offshore Emergency Response and Incident Command, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Offshore Emergency Response and Incident Command.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Emergency preparedness and command

Learning objectives

- Explain emergency preparedness and command, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Emergency preparedness and command
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Emergency planning identifies credible scenarios, warning, command, communications, muster, evacuation, medical support and external interfaces. Responsibilities and fallback communications should be understood before an event. Awareness differs from emergency-team qualification.

Decision logic. Use tabletop exercises with timed injects, observer records and debrief actions. Test loss of communications or unavailable resources. Never simulate an actual distress call or activate real emergency equipment without authorised arrangements.

Worked example. A fictional offshore incident interrupts the primary communication link during a weather restriction.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Run a tabletop with incident controller, operations, logistics and communications roles.

Model answer guide. Prioritise people, establish command, verify information, use planned backup channels and document decisions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Run a tabletop with incident controller, operations, logistics and communications roles.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of emergency preparedness and command?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about emergency preparedness and command?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about emergency preparedness and command be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating emergency preparedness and command?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in emergency preparedness and command?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning emergency preparedness and command?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for emergency preparedness and command. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on emergency preparedness and command contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about emergency preparedness and command?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in emergency preparedness and command?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Incident investigation and learning

Learning objectives

- Explain incident investigation and learning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Incident investigation and learning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. An investigation establishes what happened, why controls failed and how recurrence can be prevented. Preserve evidence, protect people and separate verified facts from assumptions. Near misses can reveal major weaknesses without actual harm.

Decision logic. Use a timeline and causal analysis to explore technical, human and organisational contributors. Avoid premature blame and unsupported conclusions. Actions should address causes, have accountable owners and be checked for effectiveness. Reporting follows applicable site and legal requirements.

Worked example. A dropped tool caused no injury, but exclusion-zone and securing controls were ineffective.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Analyse a fictional near miss and propose three causal actions.

Model answer guide. Include physical prevention, work-system improvements and verification, rather than retraining alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Analyse a fictional near miss and propose three causal actions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of incident investigation and learning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about incident investigation and learning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about incident investigation and learning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating incident investigation and learning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in incident investigation and learning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning incident investigation and learning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for incident investigation and learning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on incident investigation and learning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about incident investigation and learning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in incident investigation and learning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Safety and project leadership

Learning objectives

- Explain safety and project leadership, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Safety and project leadership
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Leadership sets priorities through decisions, resources and response to bad news. Explain the difference between stated values and incentives that reward unsafe shortcuts. Leaders need clear delegation, listening and evidence-based challenge.

Decision logic. Use leading indicators tied to important barriers and delivery outcomes. Review overdue actions and organisational capacity, not just aggregate counts. Encourage escalation and resolve conflicting objectives openly. Authority remains accountable even when tasks are delegated.

Worked example. A manager requests schedule recovery while critical tests are incomplete. The team must resolve priorities explicitly.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Write a leadership response and a 30-day improvement plan.

Model answer guide. Require safe sequencing, resources, action owners and follow-up; do not reward concealment of incomplete work.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Write a leadership response and a 30-day improvement plan.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of safety and project leadership?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about safety and project leadership?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about safety and project leadership be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating safety and project leadership?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in safety and project leadership?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning safety and project leadership?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for safety and project leadership. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on safety and project leadership contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about safety and project leadership?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in safety and project leadership?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Oil spill prevention and response awareness

Learning objectives

- Explain oil spill prevention and response awareness, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Oil spill prevention and response awareness
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Spill prevention addresses containment, transfer interfaces, equipment integrity and human actions. Response aims to protect people, prioritise receptors and use suitable tactics under authorised command. Response options depend on oil, weather and access.

Decision logic. Teach notification and planning through tabletop cases. Equipment presence alone does not establish readiness. Actual deployment, dispersant use and marine operations require competent teams and applicable approvals. This course does not confer an external response qualification.

Worked example. A hose leak occurs during a fictional transfer; wind and current threaten a sensitive receptor.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a first-response decision log without activating real equipment.

Model answer guide. Prioritise safety, source control within authority, notification, verified information and coordinated response.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a first-response decision log without activating real equipment.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of oil spill prevention and response awareness?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about oil spill prevention and response awareness?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about oil spill prevention and response awareness be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating oil spill prevention and response awareness?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in oil spill prevention and response awareness?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning oil spill prevention and response awareness?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for oil spill prevention and response awareness. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on oil spill prevention and response awareness contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about oil spill prevention and response awareness?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in oil spill prevention and response awareness?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Offshore Emergency Response and Incident Command: Work Planning

Learning objectives

- Explain offshore emergency response and incident command: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Emergency Response and Incident Command: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Offshore Emergency Response and Incident Command: Work Planning describes a practical part of Offshore Emergency Response and Incident Command. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore emergency response and incident command: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore emergency response and incident command: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore emergency response and incident command: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore emergency response and incident command: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore emergency response and incident command: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore emergency response and incident command: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore emergency response and incident command: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore emergency response and incident command: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore emergency response and incident command: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore emergency response and incident command: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore emergency response and incident command: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore emergency response and incident command: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore emergency response and incident command: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore emergency response and incident command: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Offshore Emergency Response and Incident Command: Data and Performance

Learning objectives

- Explain offshore emergency response and incident command: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Emergency Response and Incident Command: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Offshore Emergency Response and Incident Command: Data and Performance describes a practical part of Offshore Emergency Response and Incident Command. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore emergency response and incident command: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore emergency response and incident command: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore emergency response and incident command: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore emergency response and incident command: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore emergency response and incident command: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore emergency response and incident command: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore emergency response and incident command: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore emergency response and incident command: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore emergency response and incident command: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore emergency response and incident command: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore emergency response and incident command: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore emergency response and incident command: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore emergency response and incident command: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore emergency response and incident command: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Offshore Emergency Response and Incident Command: Applied Case

Learning objectives

- Explain offshore emergency response and incident command: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Emergency Response and Incident Command: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Offshore Emergency Response and Incident Command: Applied Case describes a practical part of Offshore Emergency Response and Incident Command. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore emergency response and incident command: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore emergency response and incident command: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore emergency response and incident command: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore emergency response and incident command: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore emergency response and incident command: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore emergency response and incident command: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore emergency response and incident command: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore emergency response and incident command: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore emergency response and incident command: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore emergency response and incident command: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore emergency response and incident command: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore emergency response and incident command: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore emergency response and incident command: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore emergency response and incident command: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Offshore Emergency Response and Incident Command: Communication and Escalation

Learning objectives

- Explain offshore emergency response and incident command: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Emergency Response and Incident Command: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Offshore Emergency Response and Incident Command: Communication and Escalation describes a practical part of Offshore Emergency Response and Incident Command. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore emergency response and incident command: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore emergency response and incident command: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore emergency response and incident command: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore emergency response and incident command: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore emergency response and incident command: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore emergency response and incident command: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore emergency response and incident command: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore emergency response and incident command: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore emergency response and incident command: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore emergency response and incident command: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore emergency response and incident command: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore emergency response and incident command: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore emergency response and incident command: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore emergency response and incident command: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Offshore Emergency Response and Incident Command: Knowledge Check

Learning objectives

- Explain offshore emergency response and incident command: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Emergency Response and Incident Command: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Offshore Emergency Response and Incident Command: Knowledge Check describes a practical part of Offshore Emergency Response and Incident Command. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore emergency response and incident command: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore emergency response and incident command: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore emergency response and incident command: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore emergency response and incident command: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore emergency response and incident command: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore emergency response and incident command: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore emergency response and incident command: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore emergency response and incident command: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore emergency response and incident command: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore emergency response and incident command: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore emergency response and incident command: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore emergency response and incident command: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore emergency response and incident command: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore emergency response and incident command: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Offshore Emergency Response and Incident Command: Competence Review

Learning objectives

- Explain offshore emergency response and incident command: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Emergency Response and Incident Command: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Emergency Response and Incident Command

Teaching notes

Teaching notes

Core explanation. Offshore Emergency Response and Incident Command: Competence Review describes a practical part of Offshore Emergency Response and Incident Command. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore emergency response and incident command: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore emergency response and incident command: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore emergency response and incident command: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore emergency response and incident command: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore emergency response and incident command: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore emergency response and incident command: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore emergency response and incident command: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore emergency response and incident command: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore emergency response and incident command: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore emergency response and incident command: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore emergency response and incident command: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore emergency response and incident command: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore emergency response and incident command: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore emergency response and incident command: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X08 | Environmental Monitoring for Offshore Projects

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Environmental Monitoring for Offshore Projects, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Environmental Monitoring for Offshore Projects.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Marine monitoring and evidence quality

Learning objectives

- Explain marine monitoring and evidence quality, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine monitoring and evidence quality
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Monitoring tests defined questions using repeatable sampling, measurement and analysis. Explain baseline, reference locations, quality control and detection limits. A changing measurement does not establish its cause automatically.

Decision logic. Specify indicators, frequency, methods, responsibilities and action thresholds through competent review. Maintain chain of custody and calibration records. Interpret trends alongside natural variability and other activities. Avoid using unsupported universal compliance limits.

Worked example. A sample result rises after a storm at both project and reference locations.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Interpret the result and propose a proportionate follow-up.

Model answer guide. Consider regional variability, method quality and exposure pathways before attributing causation.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Interpret the result and propose a proportionate follow-up.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine monitoring and evidence quality?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine monitoring and evidence quality?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine monitoring and evidence quality be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine monitoring and evidence quality?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine monitoring and evidence quality?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine monitoring and evidence quality?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine monitoring and evidence quality. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine monitoring and evidence quality contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine monitoring and evidence quality?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine monitoring and evidence quality?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Environmental and social impact assessment

Learning objectives

- Explain environmental and social impact assessment, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental and social impact assessment
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. An ESIA identifies project alternatives, baseline conditions, potential impacts, mitigation and monitoring. Social assessment includes affected livelihoods, access, distribution of benefits and grievance processes. Assessment should inform choices before they are fixed.

Decision logic. Apply avoidance before mitigation and consider cumulative impacts. Consultation needs accessible information and documented responses. A study's completion does not guarantee regulatory approval or community agreement. Actual scope follows applicable requirements and specialist review.

Worked example. Two fictional supply-base sites differ in transport distance and fishing-community access impacts.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare alternatives and prepare a consultation and mitigation plan.

Model answer guide. Show impact pathways, alternatives, affected groups, residual impacts and monitoring commitments.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare alternatives and prepare a consultation and mitigation plan.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental and social impact assessment?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental and social impact assessment?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental and social impact assessment be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental and social impact assessment?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental and social impact assessment?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental and social impact assessment?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental and social impact assessment. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental and social impact assessment contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental and social impact assessment?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental and social impact assessment?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Biodiversity management

Learning objectives

- Explain biodiversity management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Biodiversity management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Biodiversity management identifies important habitats and species, evaluates exposure and applies avoidance, minimisation and restoration where appropriate. Conservation objectives and legal requirements need site-specific verification. Distinguish operational mitigation from a claim of net benefit.

Decision logic. Create measurable commitments with baseline and monitoring evidence. Offsets, if considered, need rigorous specialist and regulatory evaluation; they do not automatically erase impacts. Include cumulative pressures and stakeholder knowledge.

Worked example. A fictional development can reroute a support activity away from a sensitive seasonal habitat.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft a hierarchy-based biodiversity action plan.

Model answer guide. Prioritise avoidance, define indicators and ownership, and identify evidence needed for residual-impact review.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draft a hierarchy-based biodiversity action plan.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of biodiversity management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about biodiversity management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about biodiversity management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating biodiversity management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in biodiversity management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning biodiversity management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for biodiversity management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on biodiversity management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about biodiversity management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in biodiversity management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Spill modelling and response planning

Learning objectives

- Explain spill modelling and response planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Spill modelling and response planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Spill models estimate transport and fate under specified release, oil and environmental assumptions. They produce scenarios, not exact predictions. Explain trajectory uncertainty, weathering and the importance of current metocean data.

Decision logic. Compare multiple release and weather cases. Connect outputs to response priorities and resource needs without treating a single line as a guaranteed path. Validate model limitations and update information during actual response through competent specialists.

Worked example. Two current scenarios carry a fictional release toward different receptors; one deterministic trajectory hides that range.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare scenario maps described in the exercise and propose robust priorities.

Model answer guide. Identify common priorities, scenario-dependent actions, monitoring needs and uncertainty.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare scenario maps described in the exercise and propose robust priorities.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of spill modelling and response planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about spill modelling and response planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about spill modelling and response planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating spill modelling and response planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in spill modelling and response planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning spill modelling and response planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for spill modelling and response planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on spill modelling and response planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about spill modelling and response planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in spill modelling and response planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Environmental legal register and compliance

Learning objectives

- Explain environmental legal register and compliance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental legal register and compliance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Environmental duties can arise across assessment, permits, operating conditions, waste, monitoring and closure. Identify the activity, receptor and obligation before choosing evidence. A permit application is different from an issued approval.

Decision logic. Build a current obligations register verified against official instruments and site-specific conditions. Do not import foreign discharge limits as local law. Compliance monitoring should record accountable owners, exceedances, corrective action and reporting requirements.

Worked example. A project has an assessment report but no verified record of the required approval decision.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional compliance register and classify missing evidence.

Model answer guide. Flag unverified approvals and conditions; do not mark compliant merely because a study exists.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review a fictional compliance register and classify missing evidence.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental legal register and compliance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental legal register and compliance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental legal register and compliance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental legal register and compliance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental legal register and compliance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental legal register and compliance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental legal register and compliance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental legal register and compliance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental legal register and compliance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental legal register and compliance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Environmental Monitoring for Offshore Projects: Data and Performance

Learning objectives

- Explain environmental monitoring for offshore projects: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental Monitoring for Offshore Projects: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Environmental Monitoring for Offshore Projects: Data and Performance describes a practical part of Environmental Monitoring for Offshore Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for environmental monitoring for offshore projects: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans environmental monitoring for offshore projects: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for environmental monitoring for offshore projects: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for environmental monitoring for offshore projects: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental monitoring for offshore projects: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental monitoring for offshore projects: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental monitoring for offshore projects: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental monitoring for offshore projects: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental monitoring for offshore projects: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental monitoring for offshore projects: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental monitoring for offshore projects: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental monitoring for offshore projects: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental monitoring for offshore projects: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental monitoring for offshore projects: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Environmental Monitoring for Offshore Projects: Applied Case

Learning objectives

- Explain environmental monitoring for offshore projects: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental Monitoring for Offshore Projects: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Environmental Monitoring for Offshore Projects: Applied Case describes a practical part of Environmental Monitoring for Offshore Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for environmental monitoring for offshore projects: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans environmental monitoring for offshore projects: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for environmental monitoring for offshore projects: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for environmental monitoring for offshore projects: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental monitoring for offshore projects: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental monitoring for offshore projects: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental monitoring for offshore projects: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental monitoring for offshore projects: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental monitoring for offshore projects: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental monitoring for offshore projects: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental monitoring for offshore projects: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental monitoring for offshore projects: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental monitoring for offshore projects: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental monitoring for offshore projects: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Environmental Monitoring for Offshore Projects: Communication and Escalation

Learning objectives

- Explain environmental monitoring for offshore projects: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental Monitoring for Offshore Projects: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Environmental Monitoring for Offshore Projects: Communication and Escalation describes a practical part of Environmental Monitoring for Offshore Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for environmental monitoring for offshore projects: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans environmental monitoring for offshore projects: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for environmental monitoring for offshore projects: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for environmental monitoring for offshore projects: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental monitoring for offshore projects: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental monitoring for offshore projects: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental monitoring for offshore projects: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental monitoring for offshore projects: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental monitoring for offshore projects: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental monitoring for offshore projects: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental monitoring for offshore projects: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental monitoring for offshore projects: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental monitoring for offshore projects: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental monitoring for offshore projects: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Environmental Monitoring for Offshore Projects: Knowledge Check

Learning objectives

- Explain environmental monitoring for offshore projects: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental Monitoring for Offshore Projects: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Environmental Monitoring for Offshore Projects: Knowledge Check describes a practical part of Environmental Monitoring for Offshore Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for environmental monitoring for offshore projects: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans environmental monitoring for offshore projects: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for environmental monitoring for offshore projects: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for environmental monitoring for offshore projects: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental monitoring for offshore projects: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental monitoring for offshore projects: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental monitoring for offshore projects: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental monitoring for offshore projects: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental monitoring for offshore projects: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental monitoring for offshore projects: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental monitoring for offshore projects: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental monitoring for offshore projects: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental monitoring for offshore projects: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental monitoring for offshore projects: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Environmental Monitoring for Offshore Projects: Competence Review

Learning objectives

- Explain environmental monitoring for offshore projects: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental Monitoring for Offshore Projects: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Environmental Monitoring for Offshore Projects

Teaching notes

Teaching notes

Core explanation. Environmental Monitoring for Offshore Projects: Competence Review describes a practical part of Environmental Monitoring for Offshore Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for environmental monitoring for offshore projects: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans environmental monitoring for offshore projects: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for environmental monitoring for offshore projects: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for environmental monitoring for offshore projects: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental monitoring for offshore projects: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental monitoring for offshore projects: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental monitoring for offshore projects: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental monitoring for offshore projects: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental monitoring for offshore projects: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental monitoring for offshore projects: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental monitoring for offshore projects: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental monitoring for offshore projects: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental monitoring for offshore projects: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental monitoring for offshore projects: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X09 | Energy Data Literacy and Production Reporting

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Energy Data Literacy and Production Reporting, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Energy Data Literacy and Production Reporting.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Industrial data architecture and governance

Learning objectives

- Explain industrial data architecture and governance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Industrial data architecture and governance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Industrial data flows from sensors through historians and integration platforms to analysis and decisions. Define asset identity, units, timestamps, quality status and ownership. A large dataset is not necessarily fit for purpose.

Decision logic. Check time synchronisation, missing values, calibration changes and access permissions before analysis. Keep provenance and revision history. Avoid transferring confidential operational data into exercises; all datasets in this package are fictional.

Worked example. A trend combines pressure in bar and kilopascals under one label, producing a false step change.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Create a data dictionary and quality checks for a fictional dataset.

Model answer guide. Define units, time basis, validity flags, owner and transformations; resolve inconsistent units before interpretation.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Create a data dictionary and quality checks for a fictional dataset.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of industrial data architecture and governance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about industrial data architecture and governance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about industrial data architecture and governance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating industrial data architecture and governance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in industrial data architecture and governance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning industrial data architecture and governance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for industrial data architecture and governance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on industrial data architecture and governance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about industrial data architecture and governance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in industrial data architecture and governance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Production forecasting

Learning objectives

- Explain production forecasting, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Production forecasting
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Forecasts combine reservoir behaviour, well availability, ramp-up, capacity constraints and downtime. Distinguish potential reservoir production from saleable output. State units, time basis and whether rates are instantaneous, daily averages or annual totals.

Decision logic. Build low, base and high cases with internally consistent constraints. Bottlenecks can shift as water production rises. Compare forecast to observed history when available and track revisions with reasons. Do not assign actual Namibian first-oil dates from classroom scenarios.

Worked example. A system with 100,000 barrels/day potential and 90% availability yields 90,000 barrels/day average before other constraints.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a one-year forecast with availability falling to 80% for three months.

Model answer guide. Calculate period-weighted output and explain facility versus reservoir constraints separately.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a one-year forecast with availability falling to 80% for three months.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of production forecasting?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about production forecasting?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about production forecasting be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating production forecasting?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in production forecasting?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning production forecasting?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for production forecasting. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on production forecasting contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about production forecasting?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in production forecasting?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Energy Data Literacy and Production Reporting: Systems and Interfaces

Learning objectives

- Explain energy data literacy and production reporting: systems and interfaces, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Data Literacy and Production Reporting: Systems and Interfaces
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Energy Data Literacy and Production Reporting: Systems and Interfaces describes a practical part of Energy Data Literacy and Production Reporting. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy data literacy and production reporting: systems and interfaces. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy data literacy and production reporting: systems and interfaces while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy data literacy and production reporting: systems and interfaces: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy data literacy and production reporting: systems and interfaces: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy data literacy and production reporting: systems and interfaces?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy data literacy and production reporting: systems and interfaces?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy data literacy and production reporting: systems and interfaces be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy data literacy and production reporting: systems and interfaces?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy data literacy and production reporting: systems and interfaces?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy data literacy and production reporting: systems and interfaces?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy data literacy and production reporting: systems and interfaces. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy data literacy and production reporting: systems and interfaces contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy data literacy and production reporting: systems and interfaces?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy data literacy and production reporting: systems and interfaces?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: NPV IRR and payback

Learning objectives

- Explain npv irr and payback, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of NPV IRR and payback
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Net present value discounts dated cash flows at a stated rate. Internal rate of return is a rate making NPV zero and may be ambiguous for unusual cash-flow patterns. Payback measures recovery timing and ignores some value effects.

Decision logic. Compare projects using consistent perspective, currency and risk assumptions. NPV scale and capital constraints matter; ranking by IRR alone can mislead. Real cash flows require a compatible real discount rate and nominal flows a compatible nominal rate.

Worked example. Minus 100 now and plus 121 after two years has zero NPV at 10% because 121 divided by 1.1 squared equals 100.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate NPV at 5% and explain why the result changes.

Model answer guide. NPV is about 9.75; a lower discount rate increases the present value of the future receipt.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate NPV at 5% and explain why the result changes.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of npv irr and payback?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about npv irr and payback?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about npv irr and payback be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating npv irr and payback?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in npv irr and payback?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning npv irr and payback?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for npv irr and payback. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on npv irr and payback contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about npv irr and payback?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in npv irr and payback?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Petroleum policy and institutional governance

Learning objectives

- Explain petroleum policy and institutional governance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum policy and institutional governance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Policy sets objectives, institutions assign authority, and governance creates accountability for decisions and resources. Explain government, regulator and state enterprise roles conceptually without asserting an unverified current Namibian structure.

Decision logic. Separate commercial participation from regulatory judgement and manage conflicts transparently. Define decision rights, disclosure, assurance and challenge. A strong governance design includes implementation capacity and an audit trail, not just an organisation chart.

Worked example. A fictional institution both promotes investment and evaluates its own project compliance, creating a conflict to manage.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft a responsibility matrix and conflict-management controls.

Model answer guide. Identify segregated decisions, independent review, declarations and public accountability where applicable.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draft a responsibility matrix and conflict-management controls.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum policy and institutional governance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum policy and institutional governance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum policy and institutional governance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum policy and institutional governance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum policy and institutional governance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum policy and institutional governance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum policy and institutional governance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum policy and institutional governance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum policy and institutional governance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum policy and institutional governance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Energy Data Literacy and Production Reporting: Data and Performance

Learning objectives

- Explain energy data literacy and production reporting: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Data Literacy and Production Reporting: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Energy Data Literacy and Production Reporting: Data and Performance describes a practical part of Energy Data Literacy and Production Reporting. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy data literacy and production reporting: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy data literacy and production reporting: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy data literacy and production reporting: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy data literacy and production reporting: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy data literacy and production reporting: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy data literacy and production reporting: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy data literacy and production reporting: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy data literacy and production reporting: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy data literacy and production reporting: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy data literacy and production reporting: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy data literacy and production reporting: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy data literacy and production reporting: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy data literacy and production reporting: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy data literacy and production reporting: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Energy Data Literacy and Production Reporting: Applied Case

Learning objectives

- Explain energy data literacy and production reporting: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Data Literacy and Production Reporting: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Energy Data Literacy and Production Reporting: Applied Case describes a practical part of Energy Data Literacy and Production Reporting. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy data literacy and production reporting: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy data literacy and production reporting: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy data literacy and production reporting: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy data literacy and production reporting: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy data literacy and production reporting: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy data literacy and production reporting: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy data literacy and production reporting: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy data literacy and production reporting: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy data literacy and production reporting: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy data literacy and production reporting: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy data literacy and production reporting: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy data literacy and production reporting: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy data literacy and production reporting: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy data literacy and production reporting: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Energy Data Literacy and Production Reporting: Communication and Escalation

Learning objectives

- Explain energy data literacy and production reporting: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Data Literacy and Production Reporting: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Energy Data Literacy and Production Reporting: Communication and Escalation describes a practical part of Energy Data Literacy and Production Reporting. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy data literacy and production reporting: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy data literacy and production reporting: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy data literacy and production reporting: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy data literacy and production reporting: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy data literacy and production reporting: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy data literacy and production reporting: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy data literacy and production reporting: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy data literacy and production reporting: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy data literacy and production reporting: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy data literacy and production reporting: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy data literacy and production reporting: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy data literacy and production reporting: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy data literacy and production reporting: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy data literacy and production reporting: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Energy Data Literacy and Production Reporting: Knowledge Check

Learning objectives

- Explain energy data literacy and production reporting: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Data Literacy and Production Reporting: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Energy Data Literacy and Production Reporting: Knowledge Check describes a practical part of Energy Data Literacy and Production Reporting. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy data literacy and production reporting: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy data literacy and production reporting: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy data literacy and production reporting: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy data literacy and production reporting: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy data literacy and production reporting: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy data literacy and production reporting: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy data literacy and production reporting: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy data literacy and production reporting: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy data literacy and production reporting: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy data literacy and production reporting: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy data literacy and production reporting: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy data literacy and production reporting: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy data literacy and production reporting: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy data literacy and production reporting: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Energy Data Literacy and Production Reporting: Competence Review

Learning objectives

- Explain energy data literacy and production reporting: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Data Literacy and Production Reporting: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Data Literacy and Production Reporting

Teaching notes

Teaching notes

Core explanation. Energy Data Literacy and Production Reporting: Competence Review describes a practical part of Energy Data Literacy and Production Reporting. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy data literacy and production reporting: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy data literacy and production reporting: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy data literacy and production reporting: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy data literacy and production reporting: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy data literacy and production reporting: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy data literacy and production reporting: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy data literacy and production reporting: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy data literacy and production reporting: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy data literacy and production reporting: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy data literacy and production reporting: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy data literacy and production reporting: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy data literacy and production reporting: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy data literacy and production reporting: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy data literacy and production reporting: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X10 | Contractor HSE and SIMOPS Coordination

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Contractor HSE and SIMOPS Coordination, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Contractor HSE and SIMOPS Coordination.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Offshore hazards and safe working

Learning objectives

- Explain offshore hazards and safe working, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore hazards and safe working
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Hazards include moving machinery, hydrocarbons, pressure, electricity, weather, dropped objects and human exposure. Risk depends on likelihood and consequence in a defined task. Hazard recognition is the beginning of control, not permission to work.

Decision logic. Use elimination, substitution and engineered controls before relying only on procedures or PPE. Include manual handling and hazardous substances from the IMIST source themes. Train learners to stop and escalate unsafe conditions and remain within their authority.

Worked example. A walkway crosses a lifting zone. A helmet alone does not remove dropped-load exposure.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Model answer guide. Prefer segregation or changed routing over PPE alone; identify responsible verification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore hazards and safe working?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore hazards and safe working?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore hazards and safe working be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore hazards and safe working?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore hazards and safe working?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore hazards and safe working?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore hazards and safe working. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore hazards and safe working contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore hazards and safe working?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore hazards and safe working?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review two fictional permits and identify interface conflicts and suspension triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of permit to work isolation and simops?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about permit to work isolation and simops?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about permit to work isolation and simops be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating permit to work isolation and simops?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in permit to work isolation and simops?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning permit to work isolation and simops?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for permit to work isolation and simops. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on permit to work isolation and simops contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about permit to work isolation and simops?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in permit to work isolation and simops?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Process safety fundamentals

Learning objectives

- Explain process safety fundamentals, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Process safety fundamentals
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Process safety prevents major loss-of-containment and energy-release events. Personal injury rates do not measure every major-accident risk. Explain hazard, initiating event, preventive barriers, mitigative barriers and consequences using a bowtie.

Decision logic. Assess barrier performance standards, degradation and independent assurance. HAZID, HAZOP and other reviews have different purposes and need competent facilitation. Do not call a classroom checklist a certified safety study. Track temporary changes and overdue critical actions.

Worked example. An asset reports no slips but has several overdue safety-critical tests; major-accident assurance remains weak.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a bowtie for a fictional separator loss of containment.

Model answer guide. Separate prevention and mitigation and assign barrier evidence, owner and degradation response.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a bowtie for a fictional separator loss of containment.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of process safety fundamentals?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about process safety fundamentals?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about process safety fundamentals be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating process safety fundamentals?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in process safety fundamentals?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning process safety fundamentals?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for process safety fundamentals. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on process safety fundamentals contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about process safety fundamentals?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in process safety fundamentals?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Contractor HSE and SIMOPS Coordination: Evidence and Decision Gates

Learning objectives

- Explain contractor hse and simops coordination: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor HSE and SIMOPS Coordination: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Contractor HSE and SIMOPS Coordination: Evidence and Decision Gates describes a practical part of Contractor HSE and SIMOPS Coordination. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for contractor hse and simops coordination: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans contractor hse and simops coordination: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for contractor hse and simops coordination: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for contractor hse and simops coordination: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contractor hse and simops coordination: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contractor hse and simops coordination: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contractor hse and simops coordination: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contractor hse and simops coordination: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contractor hse and simops coordination: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contractor hse and simops coordination: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contractor hse and simops coordination: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contractor hse and simops coordination: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contractor hse and simops coordination: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contractor hse and simops coordination: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Human factors and safe teamwork

Learning objectives

- Explain human factors and safe teamwork, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Human factors and safe teamwork
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Human performance is influenced by fatigue, workload, design, communication and organisational pressure. Errors are not explained adequately by blaming an individual. Teach clear handover, challenge, confirmation and usable procedures.

Decision logic. Identify conditions that make error likely and improve the system. A worker should be able to raise concerns without retaliation. Discuss language and comprehension checks, especially where teams have different experience levels. Avoid presenting awareness as immunity from error.

Worked example. A night-shift handover omits an isolation limitation because both workers assume the other knows.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Redesign the handover and role-play a closed-loop confirmation.

Model answer guide. Include critical status, restrictions, pending actions and acknowledgement, supported by a usable record.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Redesign the handover and role-play a closed-loop confirmation.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of human factors and safe teamwork?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about human factors and safe teamwork?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about human factors and safe teamwork be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating human factors and safe teamwork?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in human factors and safe teamwork?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning human factors and safe teamwork?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for human factors and safe teamwork. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on human factors and safe teamwork contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about human factors and safe teamwork?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in human factors and safe teamwork?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Contractor HSE and SIMOPS Coordination: Data and Performance

Learning objectives

- Explain contractor hse and simops coordination: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor HSE and SIMOPS Coordination: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Contractor HSE and SIMOPS Coordination: Data and Performance describes a practical part of Contractor HSE and SIMOPS Coordination. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for contractor hse and simops coordination: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans contractor hse and simops coordination: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for contractor hse and simops coordination: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for contractor hse and simops coordination: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contractor hse and simops coordination: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contractor hse and simops coordination: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contractor hse and simops coordination: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contractor hse and simops coordination: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contractor hse and simops coordination: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contractor hse and simops coordination: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contractor hse and simops coordination: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contractor hse and simops coordination: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contractor hse and simops coordination: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contractor hse and simops coordination: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Contractor HSE and SIMOPS Coordination: Applied Case

Learning objectives

- Explain contractor hse and simops coordination: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor HSE and SIMOPS Coordination: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Contractor HSE and SIMOPS Coordination: Applied Case describes a practical part of Contractor HSE and SIMOPS Coordination. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for contractor hse and simops coordination: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans contractor hse and simops coordination: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for contractor hse and simops coordination: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for contractor hse and simops coordination: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contractor hse and simops coordination: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contractor hse and simops coordination: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contractor hse and simops coordination: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contractor hse and simops coordination: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contractor hse and simops coordination: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contractor hse and simops coordination: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contractor hse and simops coordination: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contractor hse and simops coordination: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contractor hse and simops coordination: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contractor hse and simops coordination: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Contractor HSE and SIMOPS Coordination: Communication and Escalation

Learning objectives

- Explain contractor hse and simops coordination: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor HSE and SIMOPS Coordination: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Contractor HSE and SIMOPS Coordination: Communication and Escalation describes a practical part of Contractor HSE and SIMOPS Coordination. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for contractor hse and simops coordination: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans contractor hse and simops coordination: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for contractor hse and simops coordination: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for contractor hse and simops coordination: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contractor hse and simops coordination: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contractor hse and simops coordination: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contractor hse and simops coordination: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contractor hse and simops coordination: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contractor hse and simops coordination: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contractor hse and simops coordination: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contractor hse and simops coordination: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contractor hse and simops coordination: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contractor hse and simops coordination: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contractor hse and simops coordination: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Contractor HSE and SIMOPS Coordination: Knowledge Check

Learning objectives

- Explain contractor hse and simops coordination: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor HSE and SIMOPS Coordination: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Contractor HSE and SIMOPS Coordination: Knowledge Check describes a practical part of Contractor HSE and SIMOPS Coordination. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for contractor hse and simops coordination: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans contractor hse and simops coordination: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for contractor hse and simops coordination: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for contractor hse and simops coordination: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contractor hse and simops coordination: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contractor hse and simops coordination: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contractor hse and simops coordination: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contractor hse and simops coordination: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contractor hse and simops coordination: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contractor hse and simops coordination: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contractor hse and simops coordination: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contractor hse and simops coordination: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contractor hse and simops coordination: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contractor hse and simops coordination: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Contractor HSE and SIMOPS Coordination: Competence Review

Learning objectives

- Explain contractor hse and simops coordination: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor HSE and SIMOPS Coordination: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor HSE and SIMOPS Coordination

Teaching notes

Teaching notes

Core explanation. Contractor HSE and SIMOPS Coordination: Competence Review describes a practical part of Contractor HSE and SIMOPS Coordination. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for contractor hse and simops coordination: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans contractor hse and simops coordination: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for contractor hse and simops coordination: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for contractor hse and simops coordination: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of contractor hse and simops coordination: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about contractor hse and simops coordination: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about contractor hse and simops coordination: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating contractor hse and simops coordination: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in contractor hse and simops coordination: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning contractor hse and simops coordination: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for contractor hse and simops coordination: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on contractor hse and simops coordination: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about contractor hse and simops coordination: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in contractor hse and simops coordination: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X11 | Fundamentals of Gas Testing and Atmosphere Monitoring

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Fundamentals of Gas Testing and Atmosphere Monitoring, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Fundamentals of Gas Testing and Atmosphere Monitoring.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Atmospheric testing principles

Learning objectives

- Explain atmospheric testing principles, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Atmospheric testing principles
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Atmospheric testing considers oxygen, flammable and toxic hazards with instruments suitable for the task. Calibration, functional checks, sampling location, response time and sensor limitations affect validity. A reading is evidence at a place and time, not a permanent guarantee.

Decision logic. Use manufacturer-approved training and site procedures for actual instrument operation and acceptance limits. Teach why an unsuitable or failed sensor makes a reading unreliable. Do not prescribe entry thresholds or authorise testing competence through online questions alone.

Worked example. A detector displays zero but its required functional check failed. Zero cannot be trusted as proof of safe atmosphere.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Evaluate fictional detector records and decide whether evidence is fit for use.

Model answer guide. Reject unreliable evidence, withdraw the instrument according to procedure and escalate for approved replacement or review.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Evaluate fictional detector records and decide whether evidence is fit for use.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of atmospheric testing principles?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about atmospheric testing principles?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about atmospheric testing principles be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating atmospheric testing principles?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in atmospheric testing principles?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning atmospheric testing principles?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for atmospheric testing principles. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on atmospheric testing principles contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about atmospheric testing principles?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in atmospheric testing principles?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Confined space awareness

Learning objectives

- Explain confined space awareness, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Confined space awareness
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Confined spaces may contain hazardous atmospheres, engulfment or difficult escape conditions. Recognition must include the task and changing environment, not just physical size. Avoid entry where possible and plan authorised work and rescue when entry is necessary.

Decision logic. A permit, testing and ventilation are parts of a broader system including isolation, competence, communication and rescue capability. Unplanned rescue attempts can create additional casualties. This awareness course does not qualify entrants, attendants or rescuers.

Worked example. A worker collapses inside a tank. An untrained colleague must raise the alarm rather than enter impulsively.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify missing controls in a fictional confined-space plan without entering any space.

Model answer guide. Require authorised assessment, isolation, atmospheric assurance, communications and competent rescue arrangements.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify missing controls in a fictional confined-space plan without entering any space.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of confined space awareness?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about confined space awareness?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about confined space awareness be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating confined space awareness?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in confined space awareness?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning confined space awareness?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for confined space awareness. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on confined space awareness contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about confined space awareness?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in confined space awareness?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Review two fictional permits and identify interface conflicts and suspension triggers.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of permit to work isolation and simops?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about permit to work isolation and simops?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about permit to work isolation and simops be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating permit to work isolation and simops?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in permit to work isolation and simops?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning permit to work isolation and simops?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for permit to work isolation and simops. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on permit to work isolation and simops contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about permit to work isolation and simops?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in permit to work isolation and simops?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Emergency preparedness and command

Learning objectives

- Explain emergency preparedness and command, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Emergency preparedness and command
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Emergency planning identifies credible scenarios, warning, command, communications, muster, evacuation, medical support and external interfaces. Responsibilities and fallback communications should be understood before an event. Awareness differs from emergency-team qualification.

Decision logic. Use tabletop exercises with timed injects, observer records and debrief actions. Test loss of communications or unavailable resources. Never simulate an actual distress call or activate real emergency equipment without authorised arrangements.

Worked example. A fictional offshore incident interrupts the primary communication link during a weather restriction.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Run a tabletop with incident controller, operations, logistics and communications roles.

Model answer guide. Prioritise people, establish command, verify information, use planned backup channels and document decisions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Run a tabletop with incident controller, operations, logistics and communications roles.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of emergency preparedness and command?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about emergency preparedness and command?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about emergency preparedness and command be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating emergency preparedness and command?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in emergency preparedness and command?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning emergency preparedness and command?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for emergency preparedness and command. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on emergency preparedness and command contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about emergency preparedness and command?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in emergency preparedness and command?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Industrial instrumentation

Learning objectives

- Explain industrial instrumentation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Industrial instrumentation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Sensors and transmitters convert process conditions into signals. Teach range, span, accuracy, calibration and measurement uncertainty. Pressure, temperature, flow and level measurements use different principles and installation constraints.

Decision logic. Trace a measurement from process interface through signal conversion to display. Incorrect range or units can mislead control and operations. An apparently stable value may be frozen or invalid. Actual instrument work follows authorised isolation and manufacturer procedures.

Worked example. A 4-20 mA signal represents 0-100 units; 12 mA corresponds to 50 units under a linear mapping.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the indicated value at 8 mA and identify assumptions.

Model answer guide. Twenty-five units with linear mapping and a valid signal; check range and status.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the indicated value at 8 mA and identify assumptions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of industrial instrumentation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about industrial instrumentation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about industrial instrumentation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating industrial instrumentation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in industrial instrumentation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning industrial instrumentation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for industrial instrumentation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on industrial instrumentation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about industrial instrumentation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in industrial instrumentation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Fundamentals of Gas Testing and Atmosphere Monitoring: Data and Performance

Learning objectives

- Explain fundamentals of gas testing and atmosphere monitoring: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Fundamentals of Gas Testing and Atmosphere Monitoring: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Fundamentals of Gas Testing and Atmosphere Monitoring: Data and Performance describes a practical part of Fundamentals of Gas Testing and Atmosphere Monitoring. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for fundamentals of gas testing and atmosphere monitoring: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans fundamentals of gas testing and atmosphere monitoring: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fundamentals of gas testing and atmosphere monitoring: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fundamentals of gas testing and atmosphere monitoring: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fundamentals of gas testing and atmosphere monitoring: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fundamentals of gas testing and atmosphere monitoring: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fundamentals of gas testing and atmosphere monitoring: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fundamentals of gas testing and atmosphere monitoring: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fundamentals of gas testing and atmosphere monitoring: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fundamentals of gas testing and atmosphere monitoring: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fundamentals of gas testing and atmosphere monitoring: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fundamentals of gas testing and atmosphere monitoring: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Fundamentals of Gas Testing and Atmosphere Monitoring: Applied Case

Learning objectives

- Explain fundamentals of gas testing and atmosphere monitoring: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Fundamentals of Gas Testing and Atmosphere Monitoring: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Fundamentals of Gas Testing and Atmosphere Monitoring: Applied Case describes a practical part of Fundamentals of Gas Testing and Atmosphere Monitoring. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for fundamentals of gas testing and atmosphere monitoring: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans fundamentals of gas testing and atmosphere monitoring: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fundamentals of gas testing and atmosphere monitoring: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fundamentals of gas testing and atmosphere monitoring: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fundamentals of gas testing and atmosphere monitoring: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fundamentals of gas testing and atmosphere monitoring: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fundamentals of gas testing and atmosphere monitoring: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fundamentals of gas testing and atmosphere monitoring: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fundamentals of gas testing and atmosphere monitoring: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fundamentals of gas testing and atmosphere monitoring: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fundamentals of gas testing and atmosphere monitoring: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fundamentals of gas testing and atmosphere monitoring: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Fundamentals of Gas Testing and Atmosphere Monitoring: Communication and Escalation

Learning objectives

- Explain fundamentals of gas testing and atmosphere monitoring: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Fundamentals of Gas Testing and Atmosphere Monitoring: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Fundamentals of Gas Testing and Atmosphere Monitoring: Communication and Escalation describes a practical part of Fundamentals of Gas Testing and Atmosphere Monitoring. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for fundamentals of gas testing and atmosphere monitoring: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans fundamentals of gas testing and atmosphere monitoring: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fundamentals of gas testing and atmosphere monitoring: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fundamentals of gas testing and atmosphere monitoring: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fundamentals of gas testing and atmosphere monitoring: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fundamentals of gas testing and atmosphere monitoring: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Fundamentals of Gas Testing and Atmosphere Monitoring: Knowledge Check

Learning objectives

- Explain fundamentals of gas testing and atmosphere monitoring: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Fundamentals of Gas Testing and Atmosphere Monitoring: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Fundamentals of Gas Testing and Atmosphere Monitoring: Knowledge Check describes a practical part of Fundamentals of Gas Testing and Atmosphere Monitoring. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for fundamentals of gas testing and atmosphere monitoring: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans fundamentals of gas testing and atmosphere monitoring: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fundamentals of gas testing and atmosphere monitoring: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fundamentals of gas testing and atmosphere monitoring: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fundamentals of gas testing and atmosphere monitoring: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fundamentals of gas testing and atmosphere monitoring: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Fundamentals of Gas Testing and Atmosphere Monitoring: Competence Review

Learning objectives

- Explain fundamentals of gas testing and atmosphere monitoring: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Fundamentals of Gas Testing and Atmosphere Monitoring: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Fundamentals of Gas Testing and Atmosphere Monitoring

Teaching notes

Teaching notes

Core explanation. Fundamentals of Gas Testing and Atmosphere Monitoring: Competence Review describes a practical part of Fundamentals of Gas Testing and Atmosphere Monitoring. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for fundamentals of gas testing and atmosphere monitoring: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans fundamentals of gas testing and atmosphere monitoring: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for fundamentals of gas testing and atmosphere monitoring: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of fundamentals of gas testing and atmosphere monitoring: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about fundamentals of gas testing and atmosphere monitoring: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about fundamentals of gas testing and atmosphere monitoring: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating fundamentals of gas testing and atmosphere monitoring: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in fundamentals of gas testing and atmosphere monitoring: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning fundamentals of gas testing and atmosphere monitoring: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for fundamentals of gas testing and atmosphere monitoring: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on fundamentals of gas testing and atmosphere monitoring: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about fundamentals of gas testing and atmosphere monitoring: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in fundamentals of gas testing and atmosphere monitoring: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X12 | Offshore Catering, Hygiene and Camp Operations

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Offshore Catering, Hygiene and Camp Operations, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Offshore Catering, Hygiene and Camp Operations.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Offshore Catering, Hygiene and Camp Operations: Core Concepts

Learning objectives

- Explain offshore catering, hygiene and camp operations: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Core Concepts describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: core concepts. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: core concepts while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: core concepts?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: core concepts?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: core concepts be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: core concepts?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: core concepts?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: core concepts?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: core concepts. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: core concepts contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: core concepts?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: core concepts?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Marine operations and station keeping

Learning objectives

- Explain marine operations and station keeping, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine operations and station keeping
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Floating facilities and vessels maintain position through mooring, dynamic positioning or combinations appropriate to their design. Marine operations depend on weather, equipment condition and personnel competence. Explain station-keeping failure consequences for risers, lines and transfer operations.

Decision logic. Operating windows are vessel- and task-specific. Review weather forecasts, redundancy, assurance and abort criteria before work. Do not use classroom numbers as vessel limits. Interface plans should define who can pause the operation and how changes are communicated.

Worked example. An operation remains within yesterday's forecast but the latest forecast deteriorates during the planned work window.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a go-or-defer briefing identifying information needed, authority and contingency.

Model answer guide. Use current metocean data, approved limits, equipment status and safe disengagement planning.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a go-or-defer briefing identifying information needed, authority and contingency.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine operations and station keeping?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine operations and station keeping?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine operations and station keeping be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine operations and station keeping?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine operations and station keeping?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine operations and station keeping?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine operations and station keeping. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine operations and station keeping contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine operations and station keeping?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine operations and station keeping?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Offshore Catering, Hygiene and Camp Operations: Systems and Interfaces

Learning objectives

- Explain offshore catering, hygiene and camp operations: systems and interfaces, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Systems and Interfaces
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Systems and Interfaces describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: systems and interfaces. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: systems and interfaces while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: systems and interfaces: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: systems and interfaces: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: systems and interfaces?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: systems and interfaces?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: systems and interfaces be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: systems and interfaces?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: systems and interfaces?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: systems and interfaces?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: systems and interfaces. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: systems and interfaces contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: systems and interfaces?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: systems and interfaces?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Emergency preparedness and command

Learning objectives

- Explain emergency preparedness and command, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Emergency preparedness and command
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Emergency planning identifies credible scenarios, warning, command, communications, muster, evacuation, medical support and external interfaces. Responsibilities and fallback communications should be understood before an event. Awareness differs from emergency-team qualification.

Decision logic. Use tabletop exercises with timed injects, observer records and debrief actions. Test loss of communications or unavailable resources. Never simulate an actual distress call or activate real emergency equipment without authorised arrangements.

Worked example. A fictional offshore incident interrupts the primary communication link during a weather restriction.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Run a tabletop with incident controller, operations, logistics and communications roles.

Model answer guide. Prioritise people, establish command, verify information, use planned backup channels and document decisions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Run a tabletop with incident controller, operations, logistics and communications roles.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of emergency preparedness and command?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about emergency preparedness and command?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about emergency preparedness and command be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating emergency preparedness and command?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in emergency preparedness and command?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning emergency preparedness and command?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for emergency preparedness and command. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on emergency preparedness and command contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about emergency preparedness and command?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in emergency preparedness and command?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Workplace competence and assessment evidence

Learning objectives

- Explain workplace competence and assessment evidence, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Workplace competence and assessment evidence
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Competence requires consistent performance against defined criteria in relevant conditions. Attendance and quiz scores are limited evidence. Use observation, work products, questioning and authenticated logbooks, with reasonable adjustments that preserve the required standard.

Decision logic. Assessors must be competent and authorised under the adopted scheme. Safety-critical steps are mandatory, not averaged away by other marks. Record not-yet-competent outcomes, feedback, remediation and reassessment. No national unit-standard equivalence is claimed without formal mapping and approval.

Worked example. A learner answers every question correctly but cannot identify an unsafe equipment condition during observation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Plan two supervised observations and a logbook authentication method.

Model answer guide. Require task conditions, critical criteria, assessor signature, evidence and reassessment route.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Plan two supervised observations and a logbook authentication method.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of workplace competence and assessment evidence?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about workplace competence and assessment evidence?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about workplace competence and assessment evidence be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating workplace competence and assessment evidence?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in workplace competence and assessment evidence?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning workplace competence and assessment evidence?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for workplace competence and assessment evidence. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on workplace competence and assessment evidence contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about workplace competence and assessment evidence?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in workplace competence and assessment evidence?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Offshore Catering, Hygiene and Camp Operations: Data and Performance

Learning objectives

- Explain offshore catering, hygiene and camp operations: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Data and Performance describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Offshore Catering, Hygiene and Camp Operations: Applied Case

Learning objectives

- Explain offshore catering, hygiene and camp operations: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Applied Case describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Offshore Catering, Hygiene and Camp Operations: Communication and Escalation

Learning objectives

- Explain offshore catering, hygiene and camp operations: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Communication and Escalation describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Offshore Catering, Hygiene and Camp Operations: Knowledge Check

Learning objectives

- Explain offshore catering, hygiene and camp operations: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Knowledge Check describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Offshore Catering, Hygiene and Camp Operations: Competence Review

Learning objectives

- Explain offshore catering, hygiene and camp operations: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Catering, Hygiene and Camp Operations: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Catering, Hygiene and Camp Operations

Teaching notes

Teaching notes

Core explanation. Offshore Catering, Hygiene and Camp Operations: Competence Review describes a practical part of Offshore Catering, Hygiene and Camp Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore catering, hygiene and camp operations: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore catering, hygiene and camp operations: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore catering, hygiene and camp operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore catering, hygiene and camp operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore catering, hygiene and camp operations: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore catering, hygiene and camp operations: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore catering, hygiene and camp operations: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore catering, hygiene and camp operations: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore catering, hygiene and camp operations: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore catering, hygiene and camp operations: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore catering, hygiene and camp operations: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore catering, hygiene and camp operations: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore catering, hygiene and camp operations: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore catering, hygiene and camp operations: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X13 | Offshore Medical Preparedness and First Response Awareness

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Offshore Medical Preparedness and First Response Awareness, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Offshore Medical Preparedness and First Response Awareness.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Emergency preparedness and command

Learning objectives

- Explain emergency preparedness and command, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Emergency preparedness and command
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Emergency planning identifies credible scenarios, warning, command, communications, muster, evacuation, medical support and external interfaces. Responsibilities and fallback communications should be understood before an event. Awareness differs from emergency-team qualification.

Decision logic. Use tabletop exercises with timed injects, observer records and debrief actions. Test loss of communications or unavailable resources. Never simulate an actual distress call or activate real emergency equipment without authorised arrangements.

Worked example. A fictional offshore incident interrupts the primary communication link during a weather restriction.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Run a tabletop with incident controller, operations, logistics and communications roles.

Model answer guide. Prioritise people, establish command, verify information, use planned backup channels and document decisions.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Run a tabletop with incident controller, operations, logistics and communications roles.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of emergency preparedness and command?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about emergency preparedness and command?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about emergency preparedness and command be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating emergency preparedness and command?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in emergency preparedness and command?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning emergency preparedness and command?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for emergency preparedness and command. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on emergency preparedness and command contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about emergency preparedness and command?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in emergency preparedness and command?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Incident investigation and learning

Learning objectives

- Explain incident investigation and learning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Incident investigation and learning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. An investigation establishes what happened, why controls failed and how recurrence can be prevented. Preserve evidence, protect people and separate verified facts from assumptions. Near misses can reveal major weaknesses without actual harm.

Decision logic. Use a timeline and causal analysis to explore technical, human and organisational contributors. Avoid premature blame and unsupported conclusions. Actions should address causes, have accountable owners and be checked for effectiveness. Reporting follows applicable site and legal requirements.

Worked example. A dropped tool caused no injury, but exclusion-zone and securing controls were ineffective.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Analyse a fictional near miss and propose three causal actions.

Model answer guide. Include physical prevention, work-system improvements and verification, rather than retraining alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Analyse a fictional near miss and propose three causal actions.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of incident investigation and learning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about incident investigation and learning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about incident investigation and learning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating incident investigation and learning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in incident investigation and learning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning incident investigation and learning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for incident investigation and learning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on incident investigation and learning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about incident investigation and learning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in incident investigation and learning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Offshore hazards and safe working

Learning objectives

- Explain offshore hazards and safe working, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore hazards and safe working
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Hazards include moving machinery, hydrocarbons, pressure, electricity, weather, dropped objects and human exposure. Risk depends on likelihood and consequence in a defined task. Hazard recognition is the beginning of control, not permission to work.

Decision logic. Use elimination, substitution and engineered controls before relying only on procedures or PPE. Include manual handling and hazardous substances from the IMIST source themes. Train learners to stop and escalate unsafe conditions and remain within their authority.

Worked example. A walkway crosses a lifting zone. A helmet alone does not remove dropped-load exposure.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Model answer guide. Prefer segregation or changed routing over PPE alone; identify responsible verification.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore hazards and safe working?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore hazards and safe working?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore hazards and safe working be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore hazards and safe working?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore hazards and safe working?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore hazards and safe working?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore hazards and safe working. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore hazards and safe working contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore hazards and safe working?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore hazards and safe working?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Offshore Medical Preparedness and First Response Awareness: Evidence and Decision Gates

Learning objectives

- Explain offshore medical preparedness and first response awareness: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Medical Preparedness and First Response Awareness: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Medical Preparedness and First Response Awareness: Evidence and Decision Gates describes a practical part of Offshore Medical Preparedness and First Response Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore medical preparedness and first response awareness: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore medical preparedness and first response awareness: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore medical preparedness and first response awareness: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore medical preparedness and first response awareness: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore medical preparedness and first response awareness: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore medical preparedness and first response awareness: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore medical preparedness and first response awareness: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore medical preparedness and first response awareness: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore medical preparedness and first response awareness: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore medical preparedness and first response awareness: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore medical preparedness and first response awareness: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore medical preparedness and first response awareness: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore medical preparedness and first response awareness: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore medical preparedness and first response awareness: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Workplace competence and assessment evidence

Learning objectives

- Explain workplace competence and assessment evidence, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Workplace competence and assessment evidence
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Competence requires consistent performance against defined criteria in relevant conditions. Attendance and quiz scores are limited evidence. Use observation, work products, questioning and authenticated logbooks, with reasonable adjustments that preserve the required standard.

Decision logic. Assessors must be competent and authorised under the adopted scheme. Safety-critical steps are mandatory, not averaged away by other marks. Record not-yet-competent outcomes, feedback, remediation and reassessment. No national unit-standard equivalence is claimed without formal mapping and approval.

Worked example. A learner answers every question correctly but cannot identify an unsafe equipment condition during observation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Plan two supervised observations and a logbook authentication method.

Model answer guide. Require task conditions, critical criteria, assessor signature, evidence and reassessment route.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Plan two supervised observations and a logbook authentication method.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of workplace competence and assessment evidence?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about workplace competence and assessment evidence?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about workplace competence and assessment evidence be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating workplace competence and assessment evidence?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in workplace competence and assessment evidence?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning workplace competence and assessment evidence?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for workplace competence and assessment evidence. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on workplace competence and assessment evidence contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about workplace competence and assessment evidence?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in workplace competence and assessment evidence?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Offshore Medical Preparedness and First Response Awareness: Data and Performance

Learning objectives

- Explain offshore medical preparedness and first response awareness: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Medical Preparedness and First Response Awareness: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Medical Preparedness and First Response Awareness: Data and Performance describes a practical part of Offshore Medical Preparedness and First Response Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore medical preparedness and first response awareness: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore medical preparedness and first response awareness: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore medical preparedness and first response awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore medical preparedness and first response awareness: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore medical preparedness and first response awareness: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore medical preparedness and first response awareness: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore medical preparedness and first response awareness: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore medical preparedness and first response awareness: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore medical preparedness and first response awareness: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore medical preparedness and first response awareness: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore medical preparedness and first response awareness: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore medical preparedness and first response awareness: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore medical preparedness and first response awareness: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore medical preparedness and first response awareness: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Offshore Medical Preparedness and First Response Awareness: Applied Case

Learning objectives

- Explain offshore medical preparedness and first response awareness: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Medical Preparedness and First Response Awareness: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Medical Preparedness and First Response Awareness: Applied Case describes a practical part of Offshore Medical Preparedness and First Response Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore medical preparedness and first response awareness: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore medical preparedness and first response awareness: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore medical preparedness and first response awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore medical preparedness and first response awareness: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore medical preparedness and first response awareness: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore medical preparedness and first response awareness: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore medical preparedness and first response awareness: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore medical preparedness and first response awareness: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore medical preparedness and first response awareness: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore medical preparedness and first response awareness: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore medical preparedness and first response awareness: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore medical preparedness and first response awareness: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore medical preparedness and first response awareness: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore medical preparedness and first response awareness: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Offshore Medical Preparedness and First Response Awareness: Communication and Escalation

Learning objectives

- Explain offshore medical preparedness and first response awareness: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Medical Preparedness and First Response Awareness: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Medical Preparedness and First Response Awareness: Communication and Escalation describes a practical part of Offshore Medical Preparedness and First Response Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore medical preparedness and first response awareness: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore medical preparedness and first response awareness: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore medical preparedness and first response awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore medical preparedness and first response awareness: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore medical preparedness and first response awareness: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore medical preparedness and first response awareness: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore medical preparedness and first response awareness: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore medical preparedness and first response awareness: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore medical preparedness and first response awareness: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore medical preparedness and first response awareness: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore medical preparedness and first response awareness: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore medical preparedness and first response awareness: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore medical preparedness and first response awareness: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore medical preparedness and first response awareness: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Offshore Medical Preparedness and First Response Awareness: Knowledge Check

Learning objectives

- Explain offshore medical preparedness and first response awareness: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Medical Preparedness and First Response Awareness: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Medical Preparedness and First Response Awareness: Knowledge Check describes a practical part of Offshore Medical Preparedness and First Response Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore medical preparedness and first response awareness: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore medical preparedness and first response awareness: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore medical preparedness and first response awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore medical preparedness and first response awareness: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore medical preparedness and first response awareness: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore medical preparedness and first response awareness: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore medical preparedness and first response awareness: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore medical preparedness and first response awareness: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore medical preparedness and first response awareness: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore medical preparedness and first response awareness: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore medical preparedness and first response awareness: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore medical preparedness and first response awareness: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore medical preparedness and first response awareness: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore medical preparedness and first response awareness: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Offshore Medical Preparedness and First Response Awareness: Competence Review

Learning objectives

- Explain offshore medical preparedness and first response awareness: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore Medical Preparedness and First Response Awareness: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore Medical Preparedness and First Response Awareness

Teaching notes

Teaching notes

Core explanation. Offshore Medical Preparedness and First Response Awareness: Competence Review describes a practical part of Offshore Medical Preparedness and First Response Awareness. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore medical preparedness and first response awareness: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore medical preparedness and first response awareness: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore medical preparedness and first response awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for offshore medical preparedness and first response awareness: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of offshore medical preparedness and first response awareness: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about offshore medical preparedness and first response awareness: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about offshore medical preparedness and first response awareness: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating offshore medical preparedness and first response awareness: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in offshore medical preparedness and first response awareness: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning offshore medical preparedness and first response awareness: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for offshore medical preparedness and first response awareness: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on offshore medical preparedness and first response awareness: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about offshore medical preparedness and first response awareness: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in offshore medical preparedness and first response awareness: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X14 | Energy Transition and Lower-Emission Operations

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Energy Transition and Lower-Emission Operations, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Energy Transition and Lower-Emission Operations.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Energy Transition and Lower-Emission Operations: Core Concepts

Learning objectives

- Explain energy transition and lower-emission operations: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Core Concepts describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: core concepts. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: core concepts while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: core concepts?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: core concepts?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: core concepts be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: core concepts?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: core concepts?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: core concepts?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: core concepts. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: core concepts contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: core concepts?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: core concepts?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Energy Transition and Lower-Emission Operations: Risk Controls

Learning objectives

- Explain energy transition and lower-emission operations: risk controls, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Risk Controls
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Risk Controls describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: risk controls. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: risk controls while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: risk controls?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: risk controls?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: risk controls be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: risk controls?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: risk controls?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: risk controls?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: risk controls. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: risk controls contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: risk controls?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: risk controls?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Marine monitoring and evidence quality

Learning objectives

- Explain marine monitoring and evidence quality, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Marine monitoring and evidence quality
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Monitoring tests defined questions using repeatable sampling, measurement and analysis. Explain baseline, reference locations, quality control and detection limits. A changing measurement does not establish its cause automatically.

Decision logic. Specify indicators, frequency, methods, responsibilities and action thresholds through competent review. Maintain chain of custody and calibration records. Interpret trends alongside natural variability and other activities. Avoid using unsupported universal compliance limits.

Worked example. A sample result rises after a storm at both project and reference locations.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Interpret the result and propose a proportionate follow-up.

Model answer guide. Consider regional variability, method quality and exposure pathways before attributing causation.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Interpret the result and propose a proportionate follow-up.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of marine monitoring and evidence quality?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about marine monitoring and evidence quality?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about marine monitoring and evidence quality be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating marine monitoring and evidence quality?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in marine monitoring and evidence quality?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning marine monitoring and evidence quality?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for marine monitoring and evidence quality. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on marine monitoring and evidence quality contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about marine monitoring and evidence quality?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in marine monitoring and evidence quality?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Energy Transition and Lower-Emission Operations: Evidence and Decision Gates

Learning objectives

- Explain energy transition and lower-emission operations: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Evidence and Decision Gates describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Petroleum policy and institutional governance

Learning objectives

- Explain petroleum policy and institutional governance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum policy and institutional governance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Policy sets objectives, institutions assign authority, and governance creates accountability for decisions and resources. Explain government, regulator and state enterprise roles conceptually without asserting an unverified current Namibian structure.

Decision logic. Separate commercial participation from regulatory judgement and manage conflicts transparently. Define decision rights, disclosure, assurance and challenge. A strong governance design includes implementation capacity and an audit trail, not just an organisation chart.

Worked example. A fictional institution both promotes investment and evaluates its own project compliance, creating a conflict to manage.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft a responsibility matrix and conflict-management controls.

Model answer guide. Identify segregated decisions, independent review, declarations and public accountability where applicable.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draft a responsibility matrix and conflict-management controls.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum policy and institutional governance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum policy and institutional governance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum policy and institutional governance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum policy and institutional governance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum policy and institutional governance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum policy and institutional governance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum policy and institutional governance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum policy and institutional governance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum policy and institutional governance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum policy and institutional governance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Energy Transition and Lower-Emission Operations: Data and Performance

Learning objectives

- Explain energy transition and lower-emission operations: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Data and Performance describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Energy Transition and Lower-Emission Operations: Applied Case

Learning objectives

- Explain energy transition and lower-emission operations: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Applied Case describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Energy Transition and Lower-Emission Operations: Communication and Escalation

Learning objectives

- Explain energy transition and lower-emission operations: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Communication and Escalation describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Energy Transition and Lower-Emission Operations: Knowledge Check

Learning objectives

- Explain energy transition and lower-emission operations: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Knowledge Check describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Energy Transition and Lower-Emission Operations: Competence Review

Learning objectives

- Explain energy transition and lower-emission operations: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Energy Transition and Lower-Emission Operations: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Energy Transition and Lower-Emission Operations

Teaching notes

Teaching notes

Core explanation. Energy Transition and Lower-Emission Operations: Competence Review describes a practical part of Energy Transition and Lower-Emission Operations. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for energy transition and lower-emission operations: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans energy transition and lower-emission operations: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for energy transition and lower-emission operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for energy transition and lower-emission operations: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of energy transition and lower-emission operations: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about energy transition and lower-emission operations: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about energy transition and lower-emission operations: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating energy transition and lower-emission operations: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in energy transition and lower-emission operations: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning energy transition and lower-emission operations: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for energy transition and lower-emission operations: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on energy transition and lower-emission operations: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about energy transition and lower-emission operations: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in energy transition and lower-emission operations: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X15 | Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Hydrogen and Low-Carbon Fuels: Industry Fundamentals, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Hydrogen and Low-Carbon Fuels: Industry Fundamentals.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Core Concepts

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Core Concepts describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: core concepts. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: core concepts while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: core concepts: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: core concepts be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: core concepts. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: core concepts contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: core concepts?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Risk Controls

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: risk controls, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Risk Controls
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Risk Controls describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: risk controls. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: risk controls while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: risk controls: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: risk controls be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: risk controls. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: risk controls contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: risk controls?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Process safety fundamentals

Learning objectives

- Explain process safety fundamentals, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Process safety fundamentals
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Process safety prevents major loss-of-containment and energy-release events. Personal injury rates do not measure every major-accident risk. Explain hazard, initiating event, preventive barriers, mitigative barriers and consequences using a bowtie.

Decision logic. Assess barrier performance standards, degradation and independent assurance. HAZID, HAZOP and other reviews have different purposes and need competent facilitation. Do not call a classroom checklist a certified safety study. Track temporary changes and overdue critical actions.

Worked example. An asset reports no slips but has several overdue safety-critical tests; major-accident assurance remains weak.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a bowtie for a fictional separator loss of containment.

Model answer guide. Separate prevention and mitigation and assign barrier evidence, owner and degradation response.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a bowtie for a fictional separator loss of containment.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of process safety fundamentals?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about process safety fundamentals?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about process safety fundamentals be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating process safety fundamentals?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in process safety fundamentals?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning process safety fundamentals?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for process safety fundamentals. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on process safety fundamentals contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about process safety fundamentals?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in process safety fundamentals?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Global petroleum markets and price formation

Learning objectives

- Explain global petroleum markets and price formation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Global petroleum markets and price formation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Crude markets connect producers, traders, refiners and transport providers. Prices often reference benchmarks adjusted for quality, location and contract terms. OPEC is a producers' organisation, not a buyer qualification or an assurance of payment.

Decision logic. Separate physical delivery, price exposure and credit exposure. A high headline price can be offset by freight, quality discounts, finance or default risk. No company is labelled reliable without current due diligence and an approved transaction basis.

Worked example. Offer A is USD 75/barrel with USD 5 freight; offer B is USD 73 with USD 1 freight, before other terms.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare simplified netbacks and identify non-price checks.

Model answer guide. A gives 70 and B gives 72 USD/barrel; check credit, delivery, sanctions and quality terms before selection.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare simplified netbacks and identify non-price checks.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of global petroleum markets and price formation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about global petroleum markets and price formation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about global petroleum markets and price formation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating global petroleum markets and price formation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in global petroleum markets and price formation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning global petroleum markets and price formation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for global petroleum markets and price formation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on global petroleum markets and price formation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about global petroleum markets and price formation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in global petroleum markets and price formation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Petroleum policy and institutional governance

Learning objectives

- Explain petroleum policy and institutional governance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum policy and institutional governance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Policy sets objectives, institutions assign authority, and governance creates accountability for decisions and resources. Explain government, regulator and state enterprise roles conceptually without asserting an unverified current Namibian structure.

Decision logic. Separate commercial participation from regulatory judgement and manage conflicts transparently. Define decision rights, disclosure, assurance and challenge. A strong governance design includes implementation capacity and an audit trail, not just an organisation chart.

Worked example. A fictional institution both promotes investment and evaluates its own project compliance, creating a conflict to manage.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Draft a responsibility matrix and conflict-management controls.

Model answer guide. Identify segregated decisions, independent review, declarations and public accountability where applicable.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Draft a responsibility matrix and conflict-management controls.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of petroleum policy and institutional governance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about petroleum policy and institutional governance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about petroleum policy and institutional governance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating petroleum policy and institutional governance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in petroleum policy and institutional governance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning petroleum policy and institutional governance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for petroleum policy and institutional governance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on petroleum policy and institutional governance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about petroleum policy and institutional governance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in petroleum policy and institutional governance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Data and Performance

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Data and Performance describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Applied Case

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Applied Case describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Communication and Escalation

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Communication and Escalation describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Knowledge Check

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Knowledge Check describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Competence Review

Learning objectives

- Explain hydrogen and low-carbon fuels: industry fundamentals: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Hydrogen and Low-Carbon Fuels: Industry Fundamentals

Teaching notes

Teaching notes

Core explanation. Hydrogen and Low-Carbon Fuels: Industry Fundamentals: Competence Review describes a practical part of Hydrogen and Low-Carbon Fuels: Industry Fundamentals. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for hydrogen and low-carbon fuels: industry fundamentals: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans hydrogen and low-carbon fuels: industry fundamentals: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for hydrogen and low-carbon fuels: industry fundamentals: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about hydrogen and low-carbon fuels: industry fundamentals: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for hydrogen and low-carbon fuels: industry fundamentals: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on hydrogen and low-carbon fuels: industry fundamentals: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in hydrogen and low-carbon fuels: industry fundamentals: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X16 | Community Engagement for Offshore Energy Projects

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Community Engagement for Offshore Energy Projects, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Community Engagement for Offshore Energy Projects.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Stakeholder engagement and communication

Learning objectives

- Explain stakeholder engagement and communication, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Stakeholder engagement and communication
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Stakeholders can affect or be affected by a project. Analyse interests, influence, exposure and communication needs. Consultation is a continuing process, not simply sending information. Include groups with high impact exposure but limited formal power.

Decision logic. Choose accessible channels and record concerns, responses and decisions. Avoid assuming silence equals consent. Communication plans should define purpose, owner, timing, feedback and confidentiality. Actual commitments need delegated authority.

Worked example. A fictional port project consults officials but overlooks fishers whose access may change.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Develop an engagement plan and grievance-response route.

Model answer guide. Include affected groups, accessible formats, response tracking and boundaries on commitments.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Develop an engagement plan and grievance-response route.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of stakeholder engagement and communication?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about stakeholder engagement and communication?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about stakeholder engagement and communication be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating stakeholder engagement and communication?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in stakeholder engagement and communication?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning stakeholder engagement and communication?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for stakeholder engagement and communication. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on stakeholder engagement and communication contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about stakeholder engagement and communication?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in stakeholder engagement and communication?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Local content and national value

Learning objectives

- Explain local content and national value, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Local content and national value
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Local content can include employment, skills, supplier participation and durable industrial capability. Distinguish domestic ownership, local expenditure and actual value retained locally. A purchase from a locally registered importer may contain little domestic production.

Decision logic. Measure outcomes with a defined boundary, baseline and evidence. Avoid assuming a proposed policy target is current law. Supplier development must protect quality and safety while building realistic capacity and fair access.

Worked example. A fictional USD 1 million local invoice contains USD 850,000 imported equipment and USD 150,000 local services.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the local-service share and propose more meaningful indicators.

Model answer guide. Fifteen percent in this simplified boundary; employment, skills and retained value need separate evidence.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the local-service share and propose more meaningful indicators.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of local content and national value?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about local content and national value?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about local content and national value be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating local content and national value?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in local content and national value?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning local content and national value?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for local content and national value. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on local content and national value contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about local content and national value?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in local content and national value?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: Environmental and social impact assessment

Learning objectives

- Explain environmental and social impact assessment, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Environmental and social impact assessment
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. An ESIA identifies project alternatives, baseline conditions, potential impacts, mitigation and monitoring. Social assessment includes affected livelihoods, access, distribution of benefits and grievance processes. Assessment should inform choices before they are fixed.

Decision logic. Apply avoidance before mitigation and consider cumulative impacts. Consultation needs accessible information and documented responses. A study's completion does not guarantee regulatory approval or community agreement. Actual scope follows applicable requirements and specialist review.

Worked example. Two fictional supply-base sites differ in transport distance and fishing-community access impacts.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Compare alternatives and prepare a consultation and mitigation plan.

Model answer guide. Show impact pathways, alternatives, affected groups, residual impacts and monitoring commitments.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Compare alternatives and prepare a consultation and mitigation plan.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of environmental and social impact assessment?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about environmental and social impact assessment?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about environmental and social impact assessment be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating environmental and social impact assessment?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in environmental and social impact assessment?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning environmental and social impact assessment?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for environmental and social impact assessment. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on environmental and social impact assessment contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about environmental and social impact assessment?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in environmental and social impact assessment?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Community Engagement for Offshore Energy Projects: Evidence and Decision Gates

Learning objectives

- Explain community engagement for offshore energy projects: evidence and decision gates, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Evidence and Decision Gates
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Evidence and Decision Gates describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: evidence and decision gates. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: evidence and decision gates while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: evidence and decision gates: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: evidence and decision gates?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: evidence and decision gates?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: evidence and decision gates be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: evidence and decision gates?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: evidence and decision gates?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: evidence and decision gates?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: evidence and decision gates. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: evidence and decision gates contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: evidence and decision gates?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: evidence and decision gates?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Community Engagement for Offshore Energy Projects: Work Planning

Learning objectives

- Explain community engagement for offshore energy projects: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Work Planning describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: work planning?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: work planning?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: work planning be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: work planning?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: work planning?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: work planning?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: work planning. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: work planning contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: work planning?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: work planning?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Community Engagement for Offshore Energy Projects: Data and Performance

Learning objectives

- Explain community engagement for offshore energy projects: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Data and Performance describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Community Engagement for Offshore Energy Projects: Applied Case

Learning objectives

- Explain community engagement for offshore energy projects: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Applied Case describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Community Engagement for Offshore Energy Projects: Communication and Escalation

Learning objectives

- Explain community engagement for offshore energy projects: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Communication and Escalation describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Community Engagement for Offshore Energy Projects: Knowledge Check

Learning objectives

- Explain community engagement for offshore energy projects: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Knowledge Check describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Community Engagement for Offshore Energy Projects: Competence Review

Learning objectives

- Explain community engagement for offshore energy projects: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Community Engagement for Offshore Energy Projects: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Community Engagement for Offshore Energy Projects

Teaching notes

Teaching notes

Core explanation. Community Engagement for Offshore Energy Projects: Competence Review describes a practical part of Community Engagement for Offshore Energy Projects. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for community engagement for offshore energy projects: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans community engagement for offshore energy projects: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for community engagement for offshore energy projects: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for community engagement for offshore energy projects: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of community engagement for offshore energy projects: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about community engagement for offshore energy projects: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about community engagement for offshore energy projects: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating community engagement for offshore energy projects: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in community engagement for offshore energy projects: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning community engagement for offshore energy projects: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for community engagement for offshore energy projects: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on community engagement for offshore energy projects: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about community engagement for offshore energy projects: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in community engagement for offshore energy projects: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

SC-X17 | Introduction to Petroleum Project Controls

Level: SC | Duration: 1-3 days | Audience: New entrants and cross-sector professionals

1-3 days SC programme focused on Introduction to Petroleum Project Controls, using energy-sector cases and applied decisions.

Learning outcomes

- Explain core principles and terminology for Introduction to Petroleum Project Controls.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Module 1: Scope and work breakdown structures

Learning objectives

- Explain scope and work breakdown structures, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Scope and work breakdown structures
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Scope defines required outputs and boundaries. A WBS decomposes deliverables into manageable work packages; a dictionary clarifies content, exclusions and acceptance. Activities are derived from scope rather than substituted for it.

Decision logic. Trace requirements to deliverables and verification. Check for omissions, overlap and owner interfaces. Scope changes should assess cost, schedule, risk and benefits before approval. A detailed WBS is useful only when it supports responsibility and control.

Worked example. Two teams both assume the other supplies offshore installation support.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Build a WBS and dictionary entry resolving the missing interface.

Model answer guide. Assign the deliverable, acceptance evidence, owner and boundary explicitly.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Build a WBS and dictionary entry resolving the missing interface.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of scope and work breakdown structures?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about scope and work breakdown structures?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about scope and work breakdown structures be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating scope and work breakdown structures?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in scope and work breakdown structures?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning scope and work breakdown structures?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for scope and work breakdown structures. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on scope and work breakdown structures contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about scope and work breakdown structures?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in scope and work breakdown structures?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 2: Planning scheduling and critical path

Learning objectives

- Explain planning scheduling and critical path, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Planning scheduling and critical path
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. A schedule links activities through dependencies, durations, calendars and resources. Critical path identifies the longest duration path under the model's assumptions. Float is a calculated property, not spare time owned automatically by one team.

Decision logic. Validate logic before trusting dates. Resource constraints and uncertain weather windows can change the critical path. Compression may add cost or risk. State assumptions and update from actual progress rather than forcing the plan to match a desired date.

Worked example. Path A takes 3 plus 4 days; parallel path B takes 5 days. The simplified project duration is 7 days.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate duration after A's first task increases to 5 days.

Model answer guide. The A path becomes 9 days; assess downstream effects and valid recovery choices.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate duration after A's first task increases to 5 days.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of planning scheduling and critical path?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about planning scheduling and critical path?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about planning scheduling and critical path be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating planning scheduling and critical path?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in planning scheduling and critical path?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning planning scheduling and critical path?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for planning scheduling and critical path. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on planning scheduling and critical path contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about planning scheduling and critical path?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in planning scheduling and critical path?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 3: CAPEX OPEX and estimating

Learning objectives

- Explain capex opex and estimating, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of CAPEX OPEX and estimating
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Capital estimates cover assets and development; operating estimates cover recurring delivery and support activities. Define scope, price basis, location, currency, schedule and exclusions before estimating. A number without its basis is difficult to review.

Decision logic. Use analogous, parametric and bottom-up methods according to data maturity. Separate base estimate, identified risk contingency and other reserves under the adopted governance. Avoid implying that contingency is spare money for scope additions.

Worked example. A fictional equipment package is 10 million and installation is estimated at 40% of equipment cost; subtotal is 14 million before other scope.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Write an estimate basis and identify five excluded cost items.

Model answer guide. Include logistics, commissioning, taxes, spares and owner costs where appropriate; state assumptions rather than silently adding them.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Write an estimate basis and identify five excluded cost items.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of capex opex and estimating?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about capex opex and estimating?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about capex opex and estimating be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating capex opex and estimating?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in capex opex and estimating?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning capex opex and estimating?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for capex opex and estimating. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on capex opex and estimating contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about capex opex and estimating?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in capex opex and estimating?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 4: Earned value and project control

Learning objectives

- Explain earned value and project control, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Earned value and project control
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Planned value represents scheduled budgeted work; earned value represents budgeted value of completed work; actual cost represents expenditure. CPI equals EV divided by AC and SPI equals EV divided by PV under the chosen measurement method.

Decision logic. Earned value needs a reliable baseline and objective progress rules. Spending less may reflect delayed work, not efficiency. Forecasts require remaining-work judgement and known changes. Explain that aggregate indices can hide critical delays or poor quality.

Worked example. With EV 80, AC 100 and PV 90, CPI is 0.8 and SPI about 0.89.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Calculate the indices and write a management interpretation.

Model answer guide. Cost efficiency and progress are adverse under the baseline; investigate causes and forecast remaining work.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Calculate the indices and write a management interpretation.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of earned value and project control?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about earned value and project control?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about earned value and project control be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating earned value and project control?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in earned value and project control?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning earned value and project control?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for earned value and project control. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on earned value and project control contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about earned value and project control?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in earned value and project control?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 5: Risk assessment and uncertainty management

Learning objectives

- Explain risk assessment and uncertainty management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Risk assessment and uncertainty management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Define the activity and potential harm, identify hazards, evaluate existing controls, then decide further controls and ownership. A risk matrix supports prioritisation but does not prove a risk is tolerable. Include affected people and changing conditions.

Decision logic. Test whether controls are present and effective. Residual risk should be reassessed after control implementation, not merely after a promise. Escalate high-consequence uncertainty for competent review. Project risk also includes schedule, cost and opportunity effects.

Worked example. A permit lists a barrier that has not yet been installed. The claimed residual risk is premature.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Complete a risk register with cause, event, consequence, control, owner and verification.

Model answer guide. Keep hazard and consequence distinct and require evidence before taking control credit.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Complete a risk register with cause, event, consequence, control, owner and verification.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of risk assessment and uncertainty management?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about risk assessment and uncertainty management?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about risk assessment and uncertainty management be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating risk assessment and uncertainty management?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in risk assessment and uncertainty management?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning risk assessment and uncertainty management?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for risk assessment and uncertainty management. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on risk assessment and uncertainty management contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about risk assessment and uncertainty management?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in risk assessment and uncertainty management?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 6: Introduction to Petroleum Project Controls: Data and Performance

Learning objectives

- Explain introduction to petroleum project controls: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Petroleum Project Controls: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Introduction to Petroleum Project Controls: Data and Performance describes a practical part of Introduction to Petroleum Project Controls. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to petroleum project controls: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to petroleum project controls: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to petroleum project controls: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to petroleum project controls: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to petroleum project controls: data and performance?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to petroleum project controls: data and performance?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to petroleum project controls: data and performance be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to petroleum project controls: data and performance?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to petroleum project controls: data and performance?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to petroleum project controls: data and performance?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to petroleum project controls: data and performance. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to petroleum project controls: data and performance contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to petroleum project controls: data and performance?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to petroleum project controls: data and performance?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 7: Introduction to Petroleum Project Controls: Applied Case

Learning objectives

- Explain introduction to petroleum project controls: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Petroleum Project Controls: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Introduction to Petroleum Project Controls: Applied Case describes a practical part of Introduction to Petroleum Project Controls. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to petroleum project controls: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to petroleum project controls: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to petroleum project controls: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to petroleum project controls: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to petroleum project controls: applied case?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to petroleum project controls: applied case?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to petroleum project controls: applied case be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to petroleum project controls: applied case?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to petroleum project controls: applied case?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to petroleum project controls: applied case?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to petroleum project controls: applied case. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to petroleum project controls: applied case contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to petroleum project controls: applied case?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to petroleum project controls: applied case?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 8: Introduction to Petroleum Project Controls: Communication and Escalation

Learning objectives

- Explain introduction to petroleum project controls: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Petroleum Project Controls: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Introduction to Petroleum Project Controls: Communication and Escalation describes a practical part of Introduction to Petroleum Project Controls. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to petroleum project controls: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to petroleum project controls: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to petroleum project controls: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to petroleum project controls: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to petroleum project controls: communication and escalation?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to petroleum project controls: communication and escalation?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to petroleum project controls: communication and escalation be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to petroleum project controls: communication and escalation?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to petroleum project controls: communication and escalation?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to petroleum project controls: communication and escalation?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to petroleum project controls: communication and escalation. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to petroleum project controls: communication and escalation contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to petroleum project controls: communication and escalation?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to petroleum project controls: communication and escalation?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 9: Introduction to Petroleum Project Controls: Knowledge Check

Learning objectives

- Explain introduction to petroleum project controls: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Petroleum Project Controls: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Introduction to Petroleum Project Controls: Knowledge Check describes a practical part of Introduction to Petroleum Project Controls. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to petroleum project controls: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to petroleum project controls: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to petroleum project controls: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to petroleum project controls: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to petroleum project controls: knowledge check?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to petroleum project controls: knowledge check?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to petroleum project controls: knowledge check be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to petroleum project controls: knowledge check?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to petroleum project controls: knowledge check?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to petroleum project controls: knowledge check?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to petroleum project controls: knowledge check. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to petroleum project controls: knowledge check contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to petroleum project controls: knowledge check?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to petroleum project controls: knowledge check?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

Module 10: Introduction to Petroleum Project Controls: Competence Review

Learning objectives

- Explain introduction to petroleum project controls: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Introduction to Petroleum Project Controls: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Introduction to Petroleum Project Controls

Teaching notes

Teaching notes

Core explanation. Introduction to Petroleum Project Controls: Competence Review describes a practical part of Introduction to Petroleum Project Controls. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for introduction to petroleum project controls: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans introduction to petroleum project controls: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for introduction to petroleum project controls: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Activity

Prepare a decision brief for introduction to petroleum project controls: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice questions

1. What is the main purpose of introduction to petroleum project controls: competence review?

A. To support a safe, evidence-based decision within the defined operating context.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

2. What should be established before a decision about introduction to petroleum project controls: competence review?

A. Scope, applicable requirements, evidence, assumptions and decision authority.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

3. How should a material uncertainty about introduction to petroleum project controls: competence review be handled?

A. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

4. Which evidence is most useful for evaluating introduction to petroleum project controls: competence review?

A. Current, traceable, fit-for-purpose evidence reviewed by competent people.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

5. Which action best controls risk in introduction to petroleum project controls: competence review?

A. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

6. Why should interfaces be checked when planning introduction to petroleum project controls: competence review?

A. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

7. A proposed shortcut bypasses an approved safeguard for introduction to petroleum project controls: competence review. What is the best response?

A. Do not bypass it; stop and use the formal review and approval route.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

8. What should a strong case exercise on introduction to petroleum project controls: competence review contain?

A. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

9. How should the team communicate a decision about introduction to petroleum project controls: competence review?

A. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

10. What demonstrates competence in introduction to petroleum project controls: competence review?

A. A reasoned, documented decision that is accurate, controlled, within authority and open to review.

B. Proceed using an unverified assumption and omit the record.

C. Transfer the decision to an unqualified person.

D. Ignore interfaces and continue without checking safeguards.

Answer key

1. To support a safe, evidence-based decision within the defined operating context. | 2. Scope, applicable requirements, evidence, assumptions and decision authority. | 3. Record it, identify the evidence or competent review needed, and use the approved hold point when necessary. | 4. Current, traceable, fit-for-purpose evidence reviewed by competent people. | 5. Use approved controls, verify safeguards, and stop or escalate when limits are exceeded. | 6. Interactions between disciplines, equipment, schedules and stakeholders can create hazards or invalidate assumptions. | 7. Do not bypass it; stop and use the formal review and approval route. | 8. An objective, evidence, assumptions, hazards, stakeholders, decision gates, owners and review criteria. | 9. State the decision, evidence, assumptions, controls, owner, limits and escalation trigger. | 10. A reasoned, documented decision that is accurate, controlled, within authority and open to review.