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COURSE BROCHURE

Offshore Safety Case and Major Accident Hazard Training Course

4 – 8 January 2027
New York

Offshore Safety Case and Major Accident Hazard Training Course

Ref: 2851_109251 **Date:** 4 – 8 January 2027 **Location:** New York **Fees:** 9500 GBP

Offshore Safety Case and Major Accident Hazard is a 1-week training course for offshore health, safety and environment managers, safety engineers and installation managers who maintain an installation safety case, and it produces a major accident hazard register and safety case outline. Ageing platforms and leaner crews mean the case must reflect the real installation. Jupiter Prime Training delivers this course.

Why Offshore Safety Case and Major Accident Hazard Matters Now

Three pressures shape this subject. Many installations run beyond their design life, so recorded hazards and barriers may no longer match the facility. Reduced manning and remote operation change who detects and answers a loss of containment, while partners and insurers expect a case that can be read and tested rather than filed. An operator that keeps its case live can show why each risk is as low as reasonably practicable; one that lets it drift faces weak barriers and poor emergency response.

Who Gains Most from Offshore Safety Case and Major Accident Hazard

- Safety engineers who identify major accident hazards and run the risk assessments
- Safety and environment managers accountable for the safety management system
- Installation managers who must operate within the limits and barriers the case describes
- Technical authorities who verify critical elements perform as claimed
- Emergency response coordinators who plan evacuation, escape and rescue arrangements

Operator asset teams gain most when a safety engineer, a safety and environment manager and an installation manager from one platform attend together.

Offshore Safety Case and Major Accident Hazard Capabilities

Participants practise turning hazard studies into a clear safety case argument.

- Identify major accident hazards — the hazard register owner
- Assess risk against tolerability criteria and demonstrate reduction to as low as reasonably practicable — the installation manager
- Specify performance standards for safety and environmental critical elements — the verification body
- Map safety management system elements to each major hazard — the safety and environment manager
- Design a safety case structure — partners and reviewers
- Communicate residual risk and barrier status to offshore crews — the workforce

Key Offshore Safety Case and Major Accident Hazard Terms

- Safety case — a structured document showing that an installation's major hazards are identified and controlled.
- Major accident hazard — an event such as fire, explosion or structural failure able to cause multiple fatalities.
- As low as reasonably practicable — the principle that risk is reduced until further cost or effort is grossly disproportionate to the benefit.
- Bow-tie diagram — a picture linking threats, a top event and consequences through barriers.
- Safety and environmental critical element — equipment or a system whose failure could cause or fail to limit a major accident.
- Performance standard — the functionality, reliability and survivability a critical element must achieve.

Offshore Safety Case and Major Accident Hazard Day by Day

Day 1: The Safety Case Purpose and Structure

- Safety Case Lifecycle From Design to Decommissioning — When Revision Is Triggered
- Goal-Setting Versus Prescriptive Regimes — How Operators Show Risk Control
- Safety Case Document Architecture — Linking Description, Hazards and Arrangements
- Lessons From Major Offshore Accidents — Gaps That Safety Cases Missed
- Workforce Involvement in Case Preparation — Credibility With Crews and Representatives

Day 2: Identifying Major Accident Hazards

- Hazard Identification Studies on Platform Layouts — Completeness of the Hazard List
- Hydrocarbon Release Scenarios and Ignition Sources — Fire and Explosion Exposure
- Structural, Marine and Helicopter Hazards — Non-Process Threats to the Installation
- Bow-Tie Diagrams for Top Events — Threats, Barriers and Escalation Factors
- Major Accident Hazard Register Format — Ownership, Ranking and Cross-References

Day 3: Demonstrating Risk Reduction

- Risk Matrices and Tolerability Criteria — Where Individual and Societal Risk Sit
- Quantified Risk Assessment Inputs and Outputs — Strength of the Numerical Argument
- As Low As Reasonably Practicable Arguments — Gross Disproportion and Option Rejection
- Inherent Safety and Layout Options — Removing Hazards Before Adding Barriers
- Escape, Evacuation and Rescue Analysis — Temporary Refuge Endurance and Muster

Day 4: Management System and Verification

- Safety Management System Elements Mapped to Hazards — Gaps in Arrangements
- Performance Standards for Critical Elements — Functionality, Reliability and Survivability
- Independent Verification Schemes — Scope, Examination Frequency and Findings
- Management of Change Against the Safety Case — Modifications That Need Reassessment
- Audit and Key Performance Indicators for Major Hazards — Leading and Lagging Signals

Day 5: Practising the Safety Case Outline

- Building a Hazard Register for a Sample Platform — Applying Hazard Identification
- Testing a Reduction Argument for One Top Event — Applying Risk Demonstration
- Drafting Performance Standards for Three Critical Elements — Applying Verification
- Peer Challenge of Draft Case Sections — Readiness for External Review
- Completing the Major Accident Hazard Register and Safety Case Outline — Owners and Next Steps

Applying Offshore Safety Case and Major Accident Hazard After the Course

- Lead a bow-tie review of one top event on a live installation and compare its barriers with the safety case.
- Check the performance standards of three safety critical elements against recent maintenance and test records.

Offshore Safety Case and Major Accident Hazard Questions FAQ

What is an offshore safety case and major accident hazard assessment, and why does it matter now?

An offshore safety case and major accident hazard assessment shows how an installation's worst credible events are controlled. It matters now because ageing platforms and leaner crews make outdated cases a real exposure.

Which roles gain most from offshore safety case and major accident hazard training?

Safety engineers, safety and environment managers, installation managers, technical authorities and emergency response coordinators gain most.

How does offshore safety case and major accident hazard training differ from a barrier integrity course?

Offshore safety case and major accident hazard training covers the argument from hazard identification to verification. A barrier integrity course focuses on keeping individual safety critical elements working once the case exists.

What do you bring back from offshore safety case and major accident hazard training?

You bring back a draft hazard register and a safety case outline built on a sample platform, ready to adapt to your own installation.

Offshore Safety Case and Major Accident Hazard: The Way Forward

The major accident hazard register and safety case outline first inform whether the current case still matches the installation. Installation managers, safety and environment managers and verification bodies use them to target revision. After first use, revisit which hazards changed ranking against maintenance records.