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COURSE BROCHURE

Upstream Health, Safety and Environment Risk Register and Barrier Assurance Training Course

31 January – 4 February 2027
Muscat

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

Upstream Health, Safety and Environment Risk Register and Barrier Assurance Training Course

Ref: 2947_111829 **Date:** 31 January – 4 February 2027 **Location:** Muscat **Fees:** 6500 GBP

Upstream Health, Safety and Environment Risk Register and Barrier Assurance is a 1-week training course for safety and environment advisers, field supervisors and asset engineers, who leave with an asset risk register built for their own site. Ageing facilities, simultaneous operations and a mobile contractor workforce keep raising the exposure that well sites and production stations carry. Jupiter Prime Training runs this Upstream Health, Safety and Environment Risk Register and Barrier Assurance course.

Why Upstream Health, Safety and Environment Risk Register and Barrier Assurance Matters Now

Three pressures shape upstream health, safety and environment risk work today. Assets run long past their design life, so corrosion and deferred maintenance weaken barriers quietly. Contractor crews now carry out most hands-on tasks, spreading hazard knowledge thinly. Partners, insurers and host authorities expect operators to show, with evidence, that major hazards are identified and that each barrier is performing. An asset that keeps a live register and tests its barriers sees weak signals early; one that files and forgets it learns of failed barriers only after a release.

Who Gains Most from Upstream Health, Safety and Environment Risk Register and Barrier Assurance

- Safety and environment advisers responsible for hazard identification and the asset register
- Field supervisors responsible for permit control, toolbox talks and daily barrier checks
- Asset and facility engineers responsible for safety-critical equipment
- Drilling and well services leads responsible for well control and rig-site hazards
- Contract holders responsible for the safety performance of service companies on site

An asset leadership group combining operations, maintenance and safety gains most when several of its members attend together.

Upstream Health, Safety and Environment Risk Register and Barrier Assurance Capabilities

Participants move from listing hazards to proving that their barriers are in place, tested and owned.

- Identify hazards across drilling, production and transport activities — the scope of the asset register
- Assess likelihood and consequence on a consistent risk matrix — ranking which risks need action first
- Specify prevention and mitigation barriers with performance standards — engineers and maintenance planners
- Test permit, isolation and simultaneous operations controls — field supervisors and contractor crews
- Build contractor health, safety and environment expectations into selection and site oversight — contract holders and service companies
- Apply incident and near-miss findings to update barriers — asset managers deciding on corrective spend

Key Upstream Health, Safety and Environment Risk Register and Barrier Assurance Terms

- Major accident hazard — a hazard that could cause multiple fatalities, serious environmental damage or loss of the facility.
- Barrier — a physical, procedural or human control that prevents a hazardous event or limits its consequences.
- Performance standard — the stated functionality, reliability and survivability a safety-critical barrier must achieve.
- Risk matrix — a grid combining likelihood and consequence ratings to rank risks.
- Permit to work — a written authorisation that controls hazardous tasks by defining isolations and precautions.
- Leading indicator — a measure of barrier health that warns before an incident occurs.

Upstream Health, Safety and Environment Risk Register and Barrier Assurance Day by Day

Day 1: Hazard Exposure Across the Upstream Life Cycle

- Exploration, Drilling and Production Hazard Profiles — Where Major Accidents Originate
- Well Control, Hydrocarbon Release and Hydrogen Sulphide — Setting Top Event Priorities
- Occupational Hazards at Rig Sites and Plants — Choosing Register Coverage
- Environmental Aspects of Flaring, Produced Water and Spills — Defining Impact Categories
- Structured Hazard Identification Sessions — Capturing Credible Scenarios With Field Staff

Day 2: Risk Assessment and the Register

- Likelihood and Consequence Rating Scales — Producing Consistent Risk Rankings
- Asset Risk Matrix Calibration — Agreeing Tolerability Bands With Leadership
- Risk Register Structure and Ownership Fields — Making Each Risk Accountable
- Residual Risk and Reduction Options — Deciding When Risk Is Acceptably Low
- Register Review Cycles After Change — Keeping the Picture Current

Day 3: Barriers and Their Performance

- Prevention and Mitigation Barrier Mapping — Linking Controls to Each Top Event
- Safety-Critical Element Lists — Selecting Equipment That Needs Assurance
- Barrier Performance Standards — Setting Functionality, Reliability and Test Intervals
- Barrier Degradation and Impairment Logs — Deciding on Operating Restrictions
- Leading and Lagging Indicators — Reporting Barrier Health to Asset Leaders

Day 4: Field Controls, Contractors and Learning

- Permit to Work and Isolation Verification — Controlling Hazardous Maintenance Tasks
- Simultaneous Operations Matrices — Managing Drilling, Production and Construction Overlap
- Contractor Safety Pre-Qualification and Bridging Documents — Aligning Two Safety Systems
- Incident Investigation and Root Cause Charts — Turning Events Into Barrier Fixes
- Near-Miss Reporting Culture — Capturing Weak Signals From Field Crews

Day 5: Practising the Asset Risk Register

- Hazard Scenarios for a Selected Asset — Applying Day 1 Identification
- Risk Ratings and Owners for Each Scenario — Applying Day 2 Matrix
- Barrier Map and Performance Checks — Applying Day 3 Standards
- Action Tracking and Leadership Briefing Pack — Securing Resources for Gaps
- Asset Health, Safety and Environment Risk Register — Completing the Register for One Asset

Applying Upstream Health, Safety and Environment Risk Register and Barrier Assurance After the Course

- Lead a barrier review of one top event on a production station.
- Recalibrate the asset risk matrix and re-rank the highest register entries.

Upstream Health, Safety and Environment Risk Register and Barrier Assurance Questions FAQ

What is upstream health, safety and environment risk register and barrier assurance and why does it matter now?

It is the practice of recording upstream hazards, rating them and proving that barriers against them work. It matters now because assets are ageing and stakeholders expect evidence.

Which roles gain most from upstream health, safety and environment risk register and barrier assurance training?

Safety and environment advisers, field supervisors and asset engineers gain most. Drilling leads and contract holders also benefit, because their decisions directly change barrier condition.

How does upstream health, safety and environment risk register and barrier assurance differ from a general safety management system course?

This upstream health, safety and environment risk register and barrier assurance course works at asset level. A management system course covers policy and audit company-wide; this one stays with hazards, barriers and field controls at one site.

What do you bring back from upstream health, safety and environment risk register and barrier assurance training?

You bring back an asset risk register for one site, with rated scenarios, mapped barriers and owners.

Upstream Health, Safety and Environment Risk Register and Barrier Assurance: The Way Forward

The asset risk register shows which top events carry the highest residual risk and which barriers are weakest. Asset managers use it first to decide where maintenance and inspection effort goes, and supervisors use it daily for permits. After its first use, revisit the tolerability bands, since a register whose rankings never change has stopped reflecting the site.