MERCURY

Operational Safety in the Oil & Gas Industry Training Course

5 – 9 July 2027
Cape Town (South Africa)



Dubai - UAE: +971 4 450 5697
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Ref: 7027_1058587 **Date:** 5 – 9 July 2027 **Location:** Cape Town (South Africa) **Fees:** 5300 Euro

Introduction

The importance of adequate health and safety training in the oil and gas industry is highlighted by extensively reported examples of significant process safety incidents, such as the 2010 Deepwater Horizon oil rig explosion in the Gulf of Mexico, the Buncefield oil storage depot explosion 2005, the 1988 Piper Alpha oil platform explosion in the UK, and the BP Texas Refinery explosion in 2005.

An essential aspect of operational safety in the oil and gas industry is understanding the unique risks and challenges inherent in the sector. This oil and gas industry operational safety course introduces oil and gas operational safety, delving into fundamental concepts and frameworks that strengthen safety protocols and minimize risks associated with oil and gas operations.

Enhancing Operational Excellence in Oil and Gas Safety

In striving for operational excellence, the oil and gas industry operational safety course addresses oil and gas safety standards to ensure robust safety management systems are in place.

The oil and gas industry operational safety course also explores oil and gas safety statistics to highlight the critical nature of adherence to safety protocols, thereby underlining how a safety course for oil and gas can significantly improve operational integrity and preserve health within the industry.

In the oil and gas industry operational safety course, participants will gain invaluable insights into the oil and gas industry's safety and health management system, empowering them with the knowledge to excel in safety leadership.

Targeted Groups

- Technical Personnel.
- Engineering/Project/Process Personnel.
- Supervisors.
- Team Leaders.
- Safety Personnel.

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Course Objectives

By the end of this oil and gas industry operational safety course, participants will be able to:

- Enhance their skills in identifying root causes for incidents in the oil and gas industries.
- Identify all business risks.
- Learn how to be familiar with oil and gas risk assessment techniques.
- Implement advanced risk management techniques for incident prevention and control.
- Explain the purpose and procedures for investigating incidents and how the lessons learned can improve health and safety in the oil and gas industries.
- Explain the hazards inherent in oil and gas from raw materials and products' extraction, storage, and processing.
- Outline the risk management techniques used in the oil and gas industries.
- Explain the purpose and content of an organization's documented evidence to provide a convincing and valid argument that a system is adequately safe in the oil and gas industries.

Targeted Competencies

Upon the end of this oil and gas industry operational safety course, the target competencies will be able to:

- Utilize management and leadership criteria to improve safety leadership.
- Learn about the essential interpersonal and behavioral safety techniques to influence and enhance safety.
- Understand strategies to prevent incidents and accidents and the correct procedures for handling these.
- Use advanced safety coaching techniques to increase individual safety performance.
- Create, adapt, and improve the safe climate and culture of the organization.

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Course Content

Unit 1: Health, Safety, and Environmental Management in Context

- Learn from incidents.
- Hazards inherent in oil and gas.
- Risk management techniques used in the oil and gas industries.
- Safe systems of work.
- Hydrocarbon process safety I.
- Process Safety Management PSM.

Unit 2: Hydrocarbon Process Safety

- Mechanics of failure.
- Safety-critical equipment control.
- Safe containment of hydrocarbons.
- Plant operation and maintenance.
- Start-up and shutdown.
- Learn about fire hazards, risks, and controls.
- Understand furnaces and boiler operations.

Unit 3: Risk Assessment Techniques

- Framework for risk assessment.
- Hazard and operability study HAZOP.
- Failure Modes and Effects Analysis FMEA.
- The Bow-tie model.
- Learn Safety Integrity Level 'SIL' selection.
- Hazardous area classification.

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Unit 4: Fire Protection and Emergency Response

- Fire and explosion in the oil and gas industries.
- Types of fire.
- Types of explosion.
- Fire and explosion risk analysis.
- Fire and explosion protective systems.
- Learn about emergency plans and response.

Unit 5: Logistics and Transport Operations

- Maritime transport.
- Land transport.
- Diving activities.
- Cargo handling and lifting operations.