MERCURY

# Oil and Gas Technical Safety Training

29 August – 2 September 2027
Cairo (Egypt)



Dubai - UAE: +971 4 450 5697
Istanbul - Türkiye: +90 539 599 1206
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# Oil and Gas Technical Safety Training

**Ref:** 15639_318236 **Date:** 29 August – 2 September 2027 **Location:** Cairo (Egypt) **Fees:** 4000 Euro

## Introduction:

In the high-risk oil and gas industry, ensuring the safety of personnel, assets, and the environment is paramount. The Oil and Gas Technical Safety training course addresses the safety requirements for oil and petrochemical processes. It encompasses various technical safety topics, adhering to the latest international standards and OSHA regulations.

The Oil and Gas Technical Safety course explores safety protocols, hazard identification, risk assessment, and emergency response strategies. Participants will gain an understanding of process safety, managing highly hazardous chemicals, mechanical integrity, and safe work practices. It enhances the safety culture within organizations and employees with the skills to mitigate risks and prevent incidents.

This Oil and Gas Technical Safety training is customizable to meet each company's unique needs. It ensures that all safety measures align with industry-specific requirements and regulatory standards. Through theoretical knowledge and practical applications, participants will implement adequate safety strategies, safeguarding lives and promoting operational excellence in the oil and gas sector.

This Oil and Gas Technical Safety course culminates in synthesizing all learned technical safety aspects, providing participants with the expertise to navigate the unique challenges within the oil and gas sector. It ensures that the oil and gas technical safety practices, from process safety to emergency response, are thoroughly understood and capably applied.

## What Is Safety in the Oil and Gas Industry?

Safety in the oil and gas industry involves preventing accidents, injuries, and environmental damage during exploration, drilling, production, and processing. This Oil and Gas Technical Safety course includes adherence to safety regulations for technicians and other professionals and implementing process safety standards to minimize operational risks.

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## Targeted Groups:

- Safety Managers.
- Process Engineers.
- Operations Supervisors.
- Maintenance Personnel.
- HSE Health, Safety, and Environment Officers.
- Emergency Response Teams.
- Technical Staff.
- Field Workers.
- Contractors.
- Safety Consultants.
- Regulatory Compliance Officers.
- Project Managers.

## Course Objectives:

At the end of this Oil and Gas Technical Safety course, the participants will be able to:

- Understand the fundamental principles of oil and petrochemical process safety.
- Identify and mitigate hazards specific to oil and gas operations.
- Apply international standards and OSHA regulations effectively.
- Customize safety protocols to meet company-specific requirements.
- Enhance process safety management practices.
- Develop emergency response strategies for oil and gas environments.
- Foster a safety-conscious culture within the organization.
- Improve incident prevention and response capabilities.
- Equip participants with practical skills in risk assessment and safety management.
- Ensure compliance with industry standards and regulatory requirements.

## Targeted Competencies:

By the end of this Oil and Gas Technical Safety training, participants competencies will:

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- Hazard Identification.
- Risk Assessment.
- Process Safety Management.
- Emergency Response Planning.
- Regulatory Compliance.
- Safety Protocol Implementation.
- Mechanical Integrity.
- Safe Work Practices.
- Incident Investigation.
- Safety Culture Enhancement.
- Communication and Reporting Skills.
- Operational Risk Management.

## Enhancing Technical Skills in the Oil and Gas Industry:

Technical skills are required in the oil and gas industry to maintain operational safety. This Oil and Gas Technical Safety course provides an understanding of the tools and methods of oil and gas technicians to perform their roles in safety practices, regulatory adherence, and industry equipment and technologies.

Participants will familiarize themselves with the key oil and gas safety regulations that govern the industry. Emphasis will be placed on understanding the legal obligations and the importance of compliance in avoiding penalties and ensuring a safe workplace for all stakeholders.

## Course Content:

### Unit 1: Introduction to Oil and Gas Process Safety:

- Overview of oil and petrochemical processes.
- Importance of process safety in oil and gas industries.
- Regulatory frameworks and international standards OSHA, API, ISO.
- Key safety challenges and historical incidents in the industry.
- Intro to safety management systems SMS.

### Unit 2: Hazard Identification and Risk Assessment:

- Techniques for identifying hazards in oil and gas operations.
- Risk assessment methodologies HAZID, HAZOP, FMEA.
- Case studies and real-life examples of hazardous scenarios.
- Prioritize risks based on severity and likelihood.
- Implement controls and mitigation strategies.

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## Unit 3: Process Safety Management:

- Elements of process safety management PSM.
- Safety data sheets SDS and chemical management.
- Mechanical integrity of equipment and piping systems.
- Preventive maintenance and inspection practices.
- Emergency shutdown systems and process controls.

## Unit 4: Emergency Response Planning:

- Develop emergency response plans ERP for oil and gas facilities.
- Roles and responsibilities of emergency response teams.
- Simulate exercises and drills for emergency scenarios.
- Communicate protocols during emergencies.
- Evaluate the effectiveness of emergency response procedures.

## Unit 5: Safety Culture and Continuous Improvement:

- Build a strong safety culture within the organization.
- Leadership's role in promoting safety initiatives.
- Conducting safety audits and inspections.
- Continuous improvement strategies in process safety.
- Case studies of successful safety culture transformations.