

Fire Protection & Emergency Response in Oil & Gas

Course Title	Fire Protection & Emergency Response in Oil & Gas
Country	London
Location	4-5 Star Hotel
Time	8AM - 2PM
Date	2026 - 2027

Program Overview

This program provides comprehensive knowledge and practical skills in fire protection systems and emergency response planning specific to oil, gas, and petrochemical facilities. It focuses on identifying fire hazards, applying international fire safety standards, operating fire protection systems, and managing emergency situations to minimize risk to personnel, assets, and the environment. The course emphasizes real-world applications in refineries, offshore platforms, pipelines, and processing plants.

Key Learning Objectives

Participants will be able to:

- Understand fire science and fire behavior in oil & gas environments.
- Identify fire and explosion hazards in petroleum facilities.
- Apply international fire protection standards (NFPA, API, OSHA, ISO).
- Select and operate appropriate fire detection and suppression systems.

- Develop and implement effective emergency response plans.
- Perform incident command, evacuation, and coordination during emergencies.
- Conduct fire risk assessments and emergency drills.

Target Audience (Oil & Gas Sector)

- HSE & Fire Safety Engineers
- Emergency Response Team (ERT) Members
- Operations & Maintenance Supervisors
- Plant & Facility Managers
- Process & Production Engineers
- Offshore & Onshore Safety Personnel
- Security and Crisis Management Staff

Proposed 5-Day Timetable

Day 1 – Fire Fundamentals & Oil & Gas Hazards

- Fire triangle, fire chemistry, and combustion principles
- Types of fires (Class A, B, C, D, K)
- Fire and explosion hazards in oil & gas facilities

- Historical fire incidents and lessons learned

Day 2 – Fire Protection Systems & Standards

- Fire detection systems (smoke, heat, flame, gas detection)
- Fire suppression systems:
 - Water-based systems (hydrants, sprinklers, deluge)
 - Foam systems (fixed & mobile)
 - Gaseous suppression systems
- Overview of NFPA, API, OSHA, ISO standards

Day 3 – Emergency Response Planning & Command

- Emergency response organization and roles
- Incident Command System (ICS)
- Emergency response procedures for:
 - Fires and explosions
 - Gas leaks and toxic releases
- Evacuation, muster points, and accountability

Day 4 – Firefighting Operations & Emergency Drills

- Firefighting equipment and PPE

- Fixed and portable firefighting equipment operation
- Initial response actions and defensive vs. offensive firefighting
- Emergency drills, simulations, and coordination with external agencies

Day 5 – Risk Assessment, Investigation & Case Studies

- Fire risk assessment and hazard analysis
- Emergency preparedness audits and inspections
- Incident investigation and root cause analysis
- Case studies from oil & gas industry fires
- Final assessment, group exercise & course wrap-up