

# € TRAINING

Safety Hazards Associated for the Oil & Gas  
Industry





# Safety Hazards Associated for the Oil & Gas Industry

## Introduction

Safety Hazards Associated is important to everyone working in the Oil & Gas sector and it has become a core value industry. Safety hazards management systems in the Oil & Gas industry includes corporate HSSE goals, plant operations, application of the safety rules, asset safety inspections and more. This course teaches the fundamentals of supervising the health, safety, security, and environmental aspects of field work in the Oil & Gas Exploration & Production Industry Sector. Participants attending the course will have an overview of the safety and environmental issues in the petroleum industry. It will provide detailed understanding of the methods and techniques to resolve these key issues for making petroleum production and processing, cleaner and safer. This course would educate the participants to identify and assess hazards in any stage of operation, to quantify and manage them as well. This course will also highlight lessons learnt from the past accidents.

## Course Objectives:

The training course on Safety Hazards for The Oil & Gas Industry aims to help participants to develop the following critical objectives:

- Safety assurance and assessment in design and operations.
- It will also explain how to conduct hazard classification and assessments.
- Deal with accident modelling, risk assessment and management
- Different safety measures in design and process operations.
- A few case studies from offshore and petroleum industry will be also discussed
- Address various environmental issues and management that arise from drilling and oil exploration

## Target Audience

This training course is suitable for a wide range of professionals, but will be particularly beneficial to:

- Operations and Maintenance Personnel - Supervisors, Engineers, Team Leaders
- HSE personnel
- Departmental safety officers
- Safety representatives
- Newly appointed Health and Safety Advisers
- Anyone who needs to have a better understanding of operational safety

## Course outlines

### Unit 1: Introduction & Overview

- Perspective on Crisis & Emergency
- Management, understanding the terms.
- Hierarchy of Control
- Leadership and commitment
- HSE policy and strategic objectives
- Legislation and regulation
- Organization, responsibilities, and resources

## Unit 2: Safety Assurance and Assessment in Design and Operations

- Introduction to HSE Safety Assurance
- Safety in Design and Operations
- Organizing for Safety Hazard Classification and Assessment
- Hazard Evaluation and Control - HAZOP
- Conduct Hazard Classification and Assessments

## Unit 3: Accident Modelling, Risk Assessment & Management

- Dose Assessment, Safety Regulations
- Toxic Releases- Models and Methods
- Chemical Risk Analysis - Chemical Exposure Index CEI
- Case Studies in Oil Industries
- Quantitative Risk Assessment
- Fire and Explosion Models -Flammability Diagrams
- Exposure Models - Fire and Explosion: Prevention Methods
- Event Tree and Fault Tree Analyses

## Unit 4: Environmental Issues and Management

- Environmental Impact and Management
- Impact of Oil and Gas Industry in Marine Environment
- Oil Hydrocarbons in Marine Environment
- Chemical Disposal of Offshore Industry and Environmental Management
- Dispersion Models and Atmospheric Pollution
- Hazard Assessment

## Unit 5: Safety Measures in Design and Operation

- Safety Measure in Oil and Gas Industry
- Safety Methods in Design and Operation
- Process Safety Management
- Software Used In HSE
- Review and Wrap-Up