



**Petroleum, Oil & Gas**



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Training and Development

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# Course: Oil & Gas Operational Safety

Code	City	hotel	Start	End	price	Hours
192	Dublin (Ireland)	Hotel Meeting Room	2024-07-29	2024-08-02	5950 €	25

## INTRODUCTION

The importance of effective health and safety training in the oil and gas industry is highlighted by extensively reported examples of major process safety incidents including 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 (both occurring in the UK) and the BP Texas Refinery explosion in 2005. In this programme you will be able to:

- Enhance your skills in identifying root causes for incidents in the oil and gas industries
- Identify all business risks
- Familiar with oil and gas risk assessment techniques
- Implement advanced risk management techniques for incident prevention and control

## PROGRAMME OBJECTIVES

- Explain the purpose of and procedures for investigating incidents and how the lessons learnt can be used to improve health and safety in the oil and gas industries
- Explain the hazards inherent in oil and gas arising from the extraction, storage, and processing of raw materials and products
- Outline the risk management techniques used in the oil and gas industries
- Explain the purpose and content of an organisation's documented evidence to provide a convincing and valid argument that a system is adequately safe in the oil and gas industries

## TRAINING METHODOLOGY

Participants will learn by active participation during the programme through the use of exercises, case studies and open discussion forums. Videos shown will encourage further discussions and delegates are encouraged to bring forth experiences and problems from their own organisations. The programme will be run using power point slide, copies of which will be distributed both in hard and soft copies.



## PROGRAMME SUMMARY

This training programme is designed to provide a sound breadth of underpinning knowledge that enables delegates to manage oil and gas operational risks effectively.

## PROGRAMME OUTLINE

### DAY 1 - Health, Safety and Environmental Management in Context

- Learning 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)

### DAY 2 - Hydrocarbon Process Safety

- Mechanics of failure
- Safety critical equipment control
- Safe containment of hydrocarbons
- Plant operation and maintenance
- Start-up and shut down
- Fire hazards, risks and controls
- Furnaces and boiler operations

### DAY 3 - Risk assessment techniques

- Framework for risk assessment
- Hazard and Operability Study 'HAZOP'
- Failure Modes and Effects Analysis 'FMEA'
- The Bow-tie model
- Safety Integrity Level 'SIL' selection
- Hazardous Area Classification



#### **DAY 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
- Emergency Plans and response

#### **DAY 5 - Logistics and Transport Operations**

- Maritime transport
- Land transport
- Diving activities
- Cargo handling and lifting operations
- Programme review



**The Scandinavian Academy employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:**

- **Theoretical Lectures:**
  - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
  - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
  - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
  - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
  - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
  - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
  - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
  - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
  - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
  - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.