

National Examination Board for Occupational, Safety & Health (NEBOSH)

NEBOSH International Technical Certificate in Oil & Gas Operational Safety

Introduction

This is a 5 day class room course with practical individual and team exercises to cover operational safety in Oil & Gas domain. In addition with selected Oil & Gas related videos to enhance learning.

Structure

The Syllabus consists of One unit. The unit is divided into a number of elements as follows:

1. Health, Safety and environmental management in context
2. Hydrocarbon process safety 1
3. Hydrocarbon process safety 2
4. Fire protection and emergency response
5. Logistics and Transport Operations

Minimum total tuition time for International Oil and Gas (IOG) is 34 hours plus recommended private study time of 20 hours.

Objectives/Learning Outcomes

On completion of NEBOSH syllabus candidates should be able to demonstrate understanding of the content through the application of knowledge to familiar and unfamiliar situations.

In particular they should be able to:

- 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 safety cases and safety reports in the oil and gas industries
- Explain the principles of assessing and managing contractors, including the roles of parties involved
- Outline the tools, standards, measurement, competency requirements and controls applicable to Process Safety Management (PSM) in the oil and gas industries
- Explain the roles and purpose of the a permit-to-work system
- Outline the hazards, risks and controls to ensure safe start up and shut down of hydrocarbon containing equipment and processes
- Explain the importance of safe shift handover
- Outline types of failure modes that may lead to loss of containment from hydrocarbon

- Outline the controls available to maintain safety critical equipment
- Outline appropriate control measures to minimise the effects of fire and explosion in the oil and gas industries
- Outline the procedures and resources for effective emergency response
- Identify the main hazards of and suitable controls for marine transport in the oil and gas industries
- Identify the main hazards of and suitable controls for land transport in the oil and gas industries

Unit Assessment Summary

The unit is a taught unit assessed by one two-hour written examination.

The written examination consists of ten 'short answer' questions and one 'long answer' question. All questions are compulsory. Candidate scripts are marked by external examiners appointed by NEBOSH.

Who Should Attend/Business Case

Anybody who is already involved or potentially will be involved in Oil & Gas business operation, ranging from downstream, midstream upstream and wishes to have a good understanding of the Process Safety in International Oil and Gas market.

Typical attendees: Technicians (Operations, Maintenance), Supervisors, Control Room Operators, Safety Officers, Managers, Directors, Admin officers, All ranks of Drilling crew and any new comers to Oil & Gas Business market

Daily Programme Outline/Content

Daily Outline

8:30 am	Registration/Day begins
09:00	Training Starts
10:30-10:45	Morning Refreshment
12:30-13:30	Lunch
15:00-15:15	Afternoon Refreshment
17:00	End of Training

Daily Programme Content

Day 1

Health, Safety & Environmental Management in Context

- Purpose and procedure for investigating accidents
- Hazards inherent in Oil & Gas industries
- Risk Management techniques
- Health & Safety Management System's Documentation

Day 2

Hydrocarbon Process Safety 1

- Principles of assessing and Managing Contractors
- Process Safety Management Tools, Standards and Controls
- Permit To Work Systems
- Principles of Safe Shift Handover
- Importance of Safe Plant Operation and Maintenance
- Hazards, Risks and Controls applicable during Shut Down & Start Up

Day 3

Hydrocarbon Process Safety 2

- Types of Failure modes leading to loss of containment
- Controls available to Maintain Safety Critical Equipment
- Hazards, Risks and Controls of the Safe Containment of Hydrocarbon

Day 4

Fire and Explosion in the Oil & Gas Industry

- Leak & Fire Detection systems
- Spot Detection Systems
- Line Detection Systems
- Flame Detection Systems
- Heat Detection Systems

Day 5

Logistics and Transport Operations

- Main Hazards and Suitable Controls for Marine Transport in Oil & Gas Industry
- Main Hazards and Suitable Controls for Land Transport in Oil & Gas Industry
- Safety Videos
- Course Evaluation & Feedback