

ABI – 3010 OIL AND GAS©



COURSE OVERVIEW

The oil and gas industry in itself is a high risk environment, therefore Safety and health management is becoming an ever more important aspect in the control and reduction of accidents, incidents, illness and expensive litigation claims. Every day the oil and gas industry must contend with an array of health, safety and environmental concerns through its range of operations.

In Oil and Petrochemical industries, the essential purpose of Safety Management regulations is to access the scopes and definitions, areas of specific competency and responsibility of various parties. This course is important because it equips delegates with the technical knowledge, skills and tools necessary to deliver operational excellence in the safe performance of their duties in the Upstream, Midstream, Refining, Tank farms and Petrochemical facilities.

PRE-REQUISITE – none

DURATION – 5 days

TARGET AUDIENCE

- HEALTH AND SAFETY PERSONNEL
- OIL AND GAS OPERATIVES, SUPERVISORS, ENGINEERS AND MANAGERS
- INDIVIDUALS DIRECTLY RESPONSIBLE FOR A COMPANY'S ACCIDENT ANALYSIS PROCESS
- SAFETY COMMITTEE REPRESENTATIVES
- REGULATORS AND EXECUTIVES FROM THE OIL AND GAS INDUSTRY
- ALL OTHERS WITH INTEREST IN ENHANCING THE EFFECTIVENESS OF THE HEALTH AND SAFETY FUNCTION WITHIN THE OIL AND GAS INDUSTRY

ELEMENT 1 – HEALTH AND SAFETY MANAGEMENT IN THE OIL AND GAS INDUSTRY

1. Managing health and safety risks in the oil and gas industry (including learning from past disasters and major incidents)
2. Hazard recognition and control – Hazop, hazard fault/event tree analysis
3. Common workplace hazards and control
4. Fire and explosion risk in oil and gas
5. Elements of process safety management (PSM 14 elements)
 - a. Employee participation
 - b. Process safety operating procedure
 - c. Hot work permit
 - d. Training
 - e. Contractor
 - f. Process hazards analysis
 - g. Management of change
 - h. Mechanical integrity
 - i. Pre startup
 - j. Emergency planning incident investigation
 - k. Compliance auditing
 - l. Trade secrets
 - m. Management commitment and accountability
 - n. Auditing
6. Working with and selecting contractors
7. Emergency procedures
8. Safety procedures and critical operation
9. Plant and equipment maintenance
10. Safety case reports
11. Transport safety (land and marine)
12. Competency training
13. Commissioning and decommissioning

All of the above 13 sub elements of health and Safety will apply to all the remaining elements listed below

ELEMENT 2 – HYDROCARBON PROCESS SAFETY MANAGEMENT

1. Hydrocarbon safety
2. Mechanical integrity
3. Hot work
4. Pre startup safety review

ELEMENT 3 – OPERATIONAL AND SAFETY MANAGEMENT IN FILLING STATIONS

1. Petrol leaks and spills
2. Control of ignition sources
3. Operating and emergency procedures for filling stations
4. Maintenance operations
5. Planning the work
6. Safe work procedures in filling stations
7. Unleaving and venting
8. Storing, handling and dispensing of petroleum products
9. Tank dipping

ELEMENT 4 – STORAGE TANK FARM OPERATIONS

1. Types of tanks
2. Advantages and disadvantages of different types of tanks
3. Fittings on different types of tanks
4. Safe operating practices for floating roof tanks
5. Critical level of floating roof tanks
6. Recalibration of tanks
7. Safety checklist for tank farm operations
8. Precautionary measures for tank farm operations
9. Gauging and tank quantity calculation
10. Contamination and deterioration of product
11. Tank cleaning and waste water
12. Tank inspection and safety

ELEMENT 5 – SAFETY IN REFINERY AND PETROCHEMICAL PLANT OPERATION

1. Overview of a petroleum refinery
2. Product related risks
3. Physical hazards involving personnel
4. Equipment related risks
5. Safety in process operations
6. Degassing-inerting, steam, nitrogen, water
7. Hazard analysis in design and operations

ELEMENT 6 – OFFSHORE SAFETY

1. Safety considerations in Offshore Installation Design
2. Common offshore structures
3. Offshore oil and gas hazards and control
4. Exploration hazards and control
5. Rig hazards and control
6. Oilfield trucking hazards and control
7. Production and plant hazards and control

EXAM STRUCTURE

Providers can select examination or e-portfolio assessment. There will be a 2 hour exam which will consist of 10 questions (8 short answer questions and 2 long answer questions).

The course can be delivered through e-learning