Training - HSE Engineer

HSEENG-EN-P | Face-to-face only | 60 days

This course provides an in-depth knowledge of safety and environment issues in Oil & Gas production activities: from design to facilities operation

IFP Training Certificate

Graduate Certificate

Level

Knowledge

Public

Engineers (particularly field/project engineers) called on to take the position of HSE or safety engineer

Objectives

Attendees will be able to implement the following skills:

- Describe the overall production chain and explain main techniques and equipment used in the Oil & Gas facilities
- Detail HSE aspects regarding production operations, construction, maintenance works, projects/logistics
- Describe HSE management roles and responsibilities, set-up and implement HSE management system
- Contribute to safety engineering studies, incident analysis and investigation reporting, HSE monitoring

Pedagogical & technical resources

- Highly interactive training by industry specialist lecturers, with numerous teamwork sessions
- Numerous applications, case studies and experience feedback

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsable

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

DOWNHOLE PRODUCTION — 5 days

Fundamentals of reservoir engineering, drilling, completion and well servicing.

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OIL & GAS FIELD PROCESSING — 10 days

Fundamentals of reservoir engineering, drilling, completion and well servicing.
Fundamentals of thermodynamics applied to effluent processing.
Crude oil treatment.
Production water treatment and injection.
Gas processing and conditioning.
Overview of static equipment. Piping, valves, thermal and storage equipment.
Overview of rotating equipment. Pumps, compressors and gas turbines.
Instrumentation and process control.

HSE MANAGEMENT — 10 days

HSE management system.
Occupational health and safety management.
Human factors and responsibilities - HSE culture and HSE leadership.
HSE management in projects.
HSE management of contractors.
HSE management of logistics.
Undesired events reporting and investigation.
HSE audits.

HSE IN PRODUCTION & MAINTENANCE ACTIVITIES — 10 days

Hazard identification and risk assessment of surface processing operations: hazardous products, flammability, fluid behavior.
Utilities, flares & drains. Safe isolation of plant and equipment (LOTO, degassing-inerting, ventilation...).
Risk assessment of maintenance and construction works.
Permit to work system.
Emergency response. Strategies and crisis management.

SAFETY ENGINEERING — 10 days

Process hazard analysis. HAZID studies, HAZOP studies. Consequence analysis methodology.
Major hazard assessment & quantitative risk assessment.
Safety instrumented systems.
Fire detection and protection systems.

ENVIRONMENTAL MANAGEMENT — 5 days

Environmental management system.
Environmental and social impact assessment. Projects.
Applicable technologies for impact mitigation.
Waste management planning.
Oil spill contingency plan.

ASSET INTEGRITY — 5 days

Introduction to Asset Integrity Management.
Criticality and Risk Assessment Tools. FMECA, FTA.
Inspection and test.
Corrosion.
Maintenance and inspection based on failure risk.
Implementation and challenges.

HSE IN DRILLING & WELL INTERVENTION OPERATIONS — 4 days

Hazard identification and risk assessment of drilling operations.
HSE management of drilling, completion, rig move and well intervention operations.

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HSE evaluation of drilling contractors.

FINAL ORAL ASSESSMENT — 1 day

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com

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