Training - HSE in Drilling Operations

HSEFOR-EN-P

Face-to-face only

5 days

This 5-days course will be run over 4 days as there are public holidays. The entire program will be given, but the days will be extended

This course provides a thorough understanding of risks associated to drilling operations and to reinforce the HSE culture of the workplace environment

Level

Knowledge

Public

Professionals interested to get deeper knowledge in HSE related to drilling operations for Oil & Gas, geothermal and storage wells (i.e. drilling and completion engineers and technicians, mud engineers, supervisors, drilling contractor personnel)

Objectives

Attendees will be able to implement the following skills:

- Ensure high HSE standard during drilling operations
- Identify specific hazards, their associated risks during drilling operations and to define prevention and mitigation measures to reduce risks
- Identify the certificates necessary to ensure the suitability of equipment and personnel
- Understand and apply typical HSE management practices on site (prevention, protection, emergency planning)

Pedagogical & technical resources

- Several applications and illustrations
- Several case studies and teamwork sessions

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

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GENERAL RISKS ASSOCIATED TO DRILLING OPERATIONS

Introduction to Risk Assessment process. Hazard identification and risk assessment.
Risk of flammability:

- Explosive atmospheres (ATEX): flammable products, explosive limits and flash point.
- Ignition sources: naked flame, auto-ignition temperature, sparks and static electricity...

Risks associated with chemical products/toxic gas (H2S).
Health and hygiene risks. Medical fitness to work certificates.
Electrical risks. Area classification requirements. Certificates.
Personal Protective Equipment (PPE).

RISKS ASSOCIATED WITH RIG EQUIPMENT

Introduction to risks associated to derrick, rig floor, stabbing board, derrick board and crown block. Certificates.
Risk of dropped objects.
Works at height.
Introduction to risks associated to draw works, top drive, travelling block, winches and pipe handling system. Certificates.
HSE management of lifting and rigging operations.

RISKS ASSOCIATED WITH DRILLING FLUIDS PROCESSING & CEMENTING OPERATIONS

Risks associated to mud preparation, mud tanks and mud pumps.
Confined space entry procedure.
Risks associated to cuttings treatment units: shakers, degasser, desander, centrifuge...
Risks associated to cementing units and cementing operations.
HSE management of pressurized equipment.

HSE MANAGEMENT OF WELL CONTROL EQUIPMENT

Scenarios associated to well control and main impacts. Examples of catastrophic events.
Description and action of well control equipment.
Testing requirements: functional and pressure tests.
Inspection and certification of equipment and personnel with responsibilities in well control scenarios.

RISKS ASSOCIATED WITH SUPPORT FACILITIES

Engine rooms, power generation and air compressors.
Risks at workshops: hand tools, compressed gas bottles.
HSE management of storage areas.
Introduction to HSE in logistics: materials and personnel transportation requirements.

SAFETY ENGINEERING APPLICATED TO DRILLING OPERATIONS

General layout of drilling activities: safety distances.
Fire & gas detection systems: certificate and testing requirements.

RISKS IN WELL INTERVENTION OPERATIONS

Introduction to common well intervention equipment. Main risks.
Well control equipment in well intervention.
Risks in perforation and well abandonment.

ORGANIZATIONAL FRAMEWORK

Introduction to HSE management system.
HSE management of contractors:

- HSE evaluation of contractor selection.

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- Objectives and development of HSE Bridging Document: case study.

Emergency response planning:

- Main elements and resources: blow out contingency plan, environmental contingency plan and medevac plan.
- Clinic requirements.

Risks associated to simultaneous operations with production and construction activities.
Management of change procedure.
Undesired event reporting.

ENVIRONMENTAL MANAGEMENT & ENERGETIC TRANSITION OF DRILLING OPERATIONS

Introduction to environmental impacts of drilling operations.
Environmental impact assessment and environmental management plan.
Waste management practices and control for drilling operations.
Well testing environmental impacts.
Decommissioning of offshore Oil & Gas Installations.
Low carbon technologies to reduce flare emissions, eliminate venting, and pinpoint fugitive leaks.
Hybrid-powered rig equipped with battery energy storage system (ESS) to reduce emissions.
Utilization of production associated gas to power gas turbine to reduce the carbon footprint.
Utilization and storage (CCUS) technology to capture carbon dioxide released by industrial sources and, for instance, bury it deep underground.

Sessions

Pau - From 04/27/2026 to 04/30/2026 **3800 €/HT**

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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