IFP Training

This training course is offered under the **Alliance4Training** brand

Training - HSE in Maintenance and Construction Activities

EPWORK-EN-P | **Face-to-face only** | **5 days**

This course provides a thorough understanding of risks related to products, equipment and different operations involved in the execution of construction/maintenance works

Level

Knowledge

Public

Engineers, technicians and operators involved in the supervision of construction and maintenance of Oil & Gas field processing facilities

Objectives

Attendees will be able to implement the following skills:

- Identify the hazards and assess the risks associated to a construction/maintenance work
- Describe the main elements and responsibilities of the Permit To Work (PTW) system
- Identify the environmental impacts of the activity and to plan the appropriate mitigation measures
- Identify the main HSE challenges associated with the management of contractors
- Lead a team carrying out a safety audit of construction/maintenance works

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

OPERATIONS & HSE — 0.25 day

Hazards and risks incurred - Consequences.
Risk management means: equipment, organizational and human aspects.

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MAIN HAZARDS OF HYDROCARBON PROCESSING — 0.5 day

Flammability: flame ignition and propagation principles; types of combustibles, oxidizers and most common ignition sources in process facilities.
Toxicity: exposure limits; specific hazards associated to H2S; use of Safety Data Sheet (SDS).
Fluid behavior and related hazards: vessel pressure, consequences of temperature variation (thermal expansion, vaporization, vacuum, water hammer).

RISK ASSESSMENT TOOLS - JOB SAFETY ANALYSIS — 0.5 day

Fundamentals of risk assessment process.
Job Safety Analysis (JSA) procedure and steps.
JSA exercise.

PERMIT TO WORK SYSTEM PROCEDURE — 0.5 day

Permit To Work (PTW) system. Objectives. Roles and responsibilities.
Main elements of PTW system. Typical approval process and information flowchart.
Master permit and associated certificates.
Management of shift and rotation handover. Permit renewals.
New technologies applied to PTW system. Digital PTW.

HAZARD IDENTIFICATION & RISK ASSESSMENT OF MAINTENANCE & CONSTRUCTION WORKS — 1.5 days

Risk assessment and recommended mitigation measures associated to:

- Lifting: manual and mechanical.
- Work at height/over water/diving.
- Use of tools: sand blasting, lifting, chemical and HP cleaning, hydraulic tests, flexible pipes, welding tools, milling...
- Radioactive sources: hazards, markers, use.
- Electrical equipment: electrical classes, hazards, habilitation, consignation, personnel protection.
- Confined space works: ventilation, gas detection, oxygen content of air, penetration, evolution of hazard during works, supervision.
- Hydrostatic testing.
- Welding/grinding/cutting.

ENVIRONMENTAL MANAGEMENT IN MAINTENANCE & CONSTRUCTION OPERATIONS — 0.25 day

Main concepts.
Potential environmental impacts in maintenance and construction operations.
Waste management principles and strategies for planning and implementation.

ORGANIZATIONAL FRAMEWORK - HUMAN FACTORS — 0.5 day

Introduction to HSE Management system.
SIMultaneous OPerationS (SIMOPS) management.
Management of change.
Downgraded situations.
Human factors in risk management.

HSE MANAGEMENT OF CONTRACTORS — 0.5 day

Contractor management as a key element of HSE Management system.
Definition of elements for HSE contractor management from selection process to final performance evaluation.

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HSE risk assessment of contract scope.

AUDITS - MEANS OF IMPROVING THE HSE PERFORMANCE — 0.5 day

Objectives of an audit.
Pre-audit preparations: audit boundaries, expectations, audit checklists, audit plans.
Audit: findings versus expectations.

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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