Training - Safety Engineering

SAFENGC-EN-P | Face-to-face only | 15 days

This course aims to achieve deepen knowledge to assess and mitigate risks, and apply industry-required safety codes and practices when designing, constructing and operating Oil & Gas processing facilities

IFP Training Certificate

Advanced Certificate

Level

Skilled

Public

Engineers, technicians and staff, not familiar with the concepts of safety engineering, involved in operating Oil & Gas field processing facilities or in designing Oil & Gas projects architecture

Objectives

Attendees will be able to implement the following skills:

- Describe risk assessment methods of safety engineering in Oil & Gas processing
- Identify the main advantages and constraints of safety engineering studies
- Identify the necessary safety engineering studies to be carried out during a project
- Interpret the contents of standard hazard studies, explain the safe design principles and propose mitigation measures
- Define, predict and measure possible outcomes and effects

Pedagogical & technical resources

- Several applications and illustrations
- Several case studies and teamwork sessions
- A mini project will be developed and presented during the last week as part of the IFP Training Certificate process

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, including group presentations

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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MODULE 1: FUNDAMENTALS — 5 days

Fundamentals of safety engineering.
Preliminary hazard analysis. HAZID.
Hazard and operability. HAZOP.
Major hazard assessment.
Layer of protection.
Plot plan review.
Prevention of hydrocarbon ignition.
Prevention of fire escalation.
Engineering of emergency escape and evacuation resources.

MODULE 2: ADVANCED TECHNIQUES — 5 days

Inherently safer plant design.
Consequence analysis methodology.
Quantitative Risk Assessment (QRA).
Safety Instrumented Systems (SIS).
Design of fire and gas detection systems.
Active and passive fire protection.
Human factors and human errors.

MODULE 3: PROJECT — 5 days

Safety engineering mini-project for a specific surface production facility:

- Hazard identification: HAZID/HAZOP.
- Major hazard assessment. Consequence analysis.
- Plant layout. QRA.
- Safety Instrumented Systems (SIS).
- Fire protection and emergency response.

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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