Training - Petroleum Studies in Maintenance

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

The set of public courses hereunder leads to an IFP Training graduate certificate diploma of petroleum studies in Maintenance

IFP Training Certificate

Graduate Certificate

Level

Expert

Public

Maintenance Engineer, newly recruited or Maintenance Technician moving into management positions related to maintenance activities in the Oil & gas industry

Objectives

Attendees will be able to implement the following skills:

- Explain the role of various processing units in a refinery and describe the main manufacturing schemes encountered in oil refining.
- Read and understand a P&ID, identify the technology used for field instrumentation.
- Describe thermal equipment and explain impact of operating conditions on heaters' performance.
- Explain the operation and operation of centrifugal pumps and technical solutions.
- Explain the operation of centrifugal and axial compressors, steam turbines and expanders.
- List the essential elements for the sizing and choice of a compressor or turbine.
- Know the proven maintenance policies (TPM, RCM, RBM, key performance indicators, preventive maintenance tools...) in order to be able to set goals in terms of company global efficiency.
- Recognize the different forms of deterioration affecting industrial equipment.
- Specify the elements to be considered to prevent corrosion.
- List the design and optimization criteria of a utility production scheme (steam, electricity, water, air) with regard to environmental constraints.
- List the various aspects of project engineering to be applied in real cases.
- Identify risks related to products used on a facility and the recommended preventive measures in view of the importance of the risk.
- Present pre-commissioning, commissioning and start-up activities on a project from the perspective of their programming and management.
- Specify organizational and supervisory elements that make shutdown work effective.

Pedagogical & technical resources

- Detailed course material with a glossary of the main technical terms used in the refining industry.
- Active participation of trainees through interactive games and quizzes to grasp the key points of the course.
- Illustration of process control using dynamic simulators (IndissPlus de CORYS).
- Actual examples and applications from the refining, petrochemical and chemical industry.
- Use of a dynamic simulator (centrifugal compressor + steam turbine).

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- Short scenarios of the most frequent and the most serious key equipment failures, proposed by the trainer and analyzed by the group. Participants shall use their technical knowledge, reasoning skills, multidisciplinarity and operational capacities
- Wide use of samples, videos and pictures to develop practical case studies for pressure equipment such as piping, heat exchanger, reactor, distillation column, boiler, etc.
- Project by team (2 or 3 students): conception of a PID scheme from a PFD.
- Case studies and analysis of incidents and accidents.
- Cases studies on the precommissioning, commissioning and start-up of typical units.

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.

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

REFINING PROCESSES & PETROLEUM PRODUCTS	**5 days**
INSTRUMENTATION & PROCESS CONTROL CERTIFICATION	**5 days**
THERMAL EQUIPMENT	**5 days**
CENTRIFUGAL PUMPS & POSITIVE DISPLACEMENT PUMPS	**5 days**
KEY POINTS FOR COMPRESSORS & TURBINES OPERATION & INSPECTION	**5 days**
MAINTENANCE MANAGEMENT & EQUIPMENT AVAILABILITY	**5 days**
DEGRADATION CORROSION & CORROSION PREVENTION	**5 days**
UTILITIES - ENVIRONMENT MANAGEMENT	**5 days**
PIPING & INSTRUMENTATION DIAGRAM - PID (PROJECT)	**5 days**
SAFETY IN PLANT OPERATION	**5 days**
COMMISSIONING & START-UP OF PROCESS UNITS	**5 days**

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TURNAROUND MANAGEMENT

5 days

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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