

Training - Operation of hydrotreatment processes



HDTs-EN-P



Face-to-face only



4 days

This course provides a better understanding of the operation of hydrotreatment units and helps participants to be better prepared to deal with disturbed situations

Level

Skilled

Public

Shift leaders, panel operators and experienced operators in charge of the operation of hydrotreatment units

Objectives

Attendees will be able to implement the following skills:

- Identify key physico-chemical characteristics of the process
- Describe the process steps & the way to monitor them
- Justify process and operating safety measures

Pedagogical & technical resources

Each case study is covered by handling using a high fidelity simulator, following several steps:

- objective of the case study, action by the trainees: operation/settings, stabilization
- analysis of the evolution of operating parameters up to the final state; mass balance, ratios, performance
- consequences for operation strategies
- The duration and content of the training course can be customized to the needs of the client site and the profile of the participants
- Parts of or whole session adaptable to virtual classroom

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

Responsible

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

STUDY OF INITIAL SIMULATED STEADY CASE

1 day

Main process scheme, operating circuits, main pieces of equipment, control systems.

Characteristics of the streams, operating conditions.

Significance of the process parameters of the units: mass balances, temperatures, pressures, recycle flow rates, amine washing

efficiency, recontacting system.

Profile of important parameters along the unit (pressure, temperatures).

Analytical survey.

OPERATION OF THE UNIT: MAIN OPERATING PARAMETERS & OPTIMIZATION

2 days

Each operating parameter impact on operation is illustrated thanks to simulator handlings.

Reactor temperatures, pressure drop and H₂ partial pressure, recycle rate, quench ratio, recontacting ratio...

Feed composition according to origins of constituents.

Severity of different processes according to feed and products specifications.

Protection of the catalyst along a run.

Give away and how to avoid it.

Optimization of stripping and drying operation.

TROUBLESHOOTING

1 day

Risks and hazards related to the process.

Safety and ESD system.

Operating deviations:

- Feed or hydrogen composition change.
- Amine washing failure, heater failure.
- Make-up gas or recycle gas compressor failure, feed pump failure.

Start-up procedures: main steps and explanation of the role of each step.

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