

Formation - «Troubleshooting» dans l'industrie du pétrole



TBS-EN-P



Présentiel



3 jours

This course provides a better understanding of what troubleshooting is and gives keys to solve basic troubleshooting cases on refining and petrochemical equipment and plants

Niveau

Perfectionnement

Public

Engineers, senior operation personnel or technical supervisory staff interested in solving troubleshooting cases on refining and petrochemical plants

Objectifs

Attendees will be able to implement the following skills:

- Troubleshoot main equipment problems: air cooler, distillation column, reactor, furnaces...
- Systematically use an easy-to-implement methodology of troubleshooting

Pédagogie & ressources techniques

- “Gamification”, quizzes and exercises
- Videos
- Interactive and realistic sessions of troubleshooting cases studies

Évaluation des acquis

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer, such as case studies per group
- 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

Prérequis

No prerequisites are necessary to follow this course

Responsable

Formateur IFP Training, ayant une expertise dans le domaine et formé à des méthodes pédagogiques modernes adaptées aux besoins spécifiques des apprenants issus du milieu professionnel

Programme

TROUBLESHOOTING IN PRACTICE

0.75 day

What is troubleshooting? Typical cases seen in refineries and petrochemical plants.

How to start with a troubleshooting case: main rules, laws, orders of magnitude often used during a troubleshooting exercise on site (mass and energy balances, pressure and pressure drop behavior, thermodynamical laws...).

Main onsite practical devices used in troubleshooting for temperature, pressure, flows measurements, chemical analysis, gamma scanning... - Advantages and drawbacks, precautions of uses.

METHODOLOGY

0.25 day

Overview of different methods used in troubleshooting: 5 Why, RCA, PDCA...

Presentation of an easy-to-implement method based on PDCA. This methodology will be used during all the training to solve the different troubleshooting exercises.

Exercises to implement the methodology on real cases studies.

TROUBLESHOOTING OF EQUIPMENT - CASES STUDIES

2 days

Troubleshooting case study on industrial equipment.

The objective of these exercises is to list, per equipment, the main operating conditions, the main causes of malfunction or failure and the different solution to implement in order to solve the situation (PDCA Method).

Review of the main causes of malfunction of equipment (troubleshooting checklists):

- Heat exchangers (performances, velocity influence, potential problems, fouling and cleaning, water exchanger, tubes inserts types and influence...).
- Air cooler (optimization, potential problems, fouling and cleaning, fogging system).
- Furnace (combustion and yield, controls, fouling and cleaning, tubes coking...).
- Distillation column (tower tray: efficiency and flooding, commissioning...).
- Reactor (internals, catalysts: potential problems...).
- Vacuum system (functioning, potential problems...).
- Pumps and compressors.

Troubleshooting case study on industrial units.

The objective of these exercises is to summarize and practice all the elements discussed during the course.

IFP Training est référencé au DataDock. Rapprochez-vous de votre OPCO pour connaître les possibilités de financement de cette formation.
Pour vérifier l'accessibilité de cette formation à une personne en situation de handicap, contactez notre référent à l'adresse suivante :
referent.handicap@ifptraining.com