Formation - Bruts - Raffinage - Produits - Schémas de fabrication

BRP-EN-P | Présentiel | 5 jours

Cette formation apporte une information technique sur les bases des différents procédés de raffinage permettant de comprendre un schéma de fabrication en lien avec les qualités des produits

Niveau

Fondamentaux

Public

Professionals in the Oil & Gas industry (engineers, technicians...) or related sectors (in the technical, commercial, legal, finance, or HR departments) interested in oil refining

Objectifs

Attendees will be able to implement the following skills:

- describe the composition, main characteristics and new trends of petroleum products
- explain the role of various processing units in a refinery
- describe the main manufacturing schemes encountered in oil refining
- acquire and use a common vocabulary with interlocutors in the oil services sector

Pédagogie & ressources techniques

- 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

Évaluation des acquis

- 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

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

PETROLEUM STATISTICS — 0.25 day

Evolution of the structure of the Crude market and the characteristics of petroleum products on a European and global scale. Biofuels in formulations.

PETROLEUM PRODUCTS — 1 day

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Principal components of petroleum products; general hydrocarbon classification and main impurities (sulfur, nitrogen, metals and asphaltenes, etc.).
Quality requirements for petroleum products regarding their utilization: quality specifications measured by standard tests, characteristics related to the product composition.

REFINING PROCESSES — 3.5 days

Crude oil fractionation

- Origin, overall characteristics and classification of crude oils.
- Yields and properties of straight-run cuts obtained by distillation, potential destinations.
- Industrial units: atmospheric distillation, vacuum distillation, light-ends fractionation.
- Typical process scheme, operating conditions.

Catalytic reforming and isomerization

- Octane improvement of virgin naphthas.
- Basics of processes, types of catalyst, product yields and hydrogen production.
- Industrial units: process flowsheets, operating conditions, equipment, low pressure processes.

Hydrorefining processes

- Main features of impurities removal by catalytic hydrogen treatment.
- Main refining applications.
- Example of ULSD hydrotreatment unit: operating principles, operating conditions.
- Sulfur recovery unit: amine washing, sulfur production, Tail gas treatment from Claus units.

Conversion units

- Outline of conversion and various cracking processes.
- Characteristics and origin of feeds for cracking.
- Conversion by means of thermal cracking: visbreaker, various cokers.
- Conversion by means of catalytic cracking: FCC and related units, gasoline sweetening and desulfurization, alkylation, production of ethers and propylene, hydrocracker and related units, hydrogen production (SMR, POX).
- Developments in hydrotreatment and hydroconversion of heavy residues.

Evolution of feeds and processes

- Co-processing
- Bio-refineries

MANUFACTURING FLOWSHEETS — 0.25 day

Main routes to major products.
Up to date refining schemes including the production of petrochemical intermediate products.
Impacts of the evolution of market demand and the quality of the products on manufacturing patterns.
Base lube oil manufacturing.

Sessions

Rueil-Malmaison - Du 14/12/2026 au 18/12/2026 — **3440 €/HT**

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

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