

Refresher Course for Production Operator

15 days

PROP/REFRESHOPGB

Overview

LEVEL

Knowledge

PURPOSE

This course aims to increase the knowledge in oil/gas/water processing operations, as well as acquiring or validating fundamentals of rotating machines and static equipment operation.

LEARNING OBJECTIVES

Upon completion of the training, participants will be able to:

efficiently operate Oil & Gas production units, solve operational problems, analyze cause-and-effect relationships related to an action or operation, detect malfunction and anticipate process deviation, better monitor rotating machines and their ancillaries by focusing on their critical parameters and equipment, help extend equipment uptime, take into account machine and process safety aspects, optimize static equipment operation, taking into account their technology as well as the related process safety aspects.

WAYS AND MEANS

Numerous exercises and applications concerning the operation of production facilities.

The course can be adapted according to the experience and/or actual equipment operated by the participants.

LEARNING ASSESSMENT

Assessment by test at the end of each module.

PREREQUISITES

One year minimum work experience on a gas and/or oil production site.

Agenda

OIL, GAS & WATER PROCESSING & OPERATOR DUTIES

5 d

Wells: performance, activation, monitoring and operation.

Oil treatment: multi-stage separation, dehydration, desalting, treatment of emulsions, treatment of foaming, sweetening.

Gas treatment: sweetening, dehydration, NGL and condensate recovery.

Water treatment: production and injection water treatment.

ROTATING EQUIPMENT OPERATION & MONITORING

5 d

Centrifugal and volumetric pumps, centrifugal and reciprocating compressor:

Technology, seal (gas or oil) system, ancillary circuit, UCP/DCS HMI, safety system.

Normal operation.

Troubleshooting.

Drivers: electrical motors, Diesel engines, gas turbines. Associated safety system.

STATIC EQUIPMENT USED IN OIL & GAS PRODUCTION

Wells: from downhole to choke valve, manual valves, automatic valves, safety system, control cabinet.
Separator, distillation column, dehydrator and desalter, wash tanks: technology, control system & safety equipment.

Thermal equipment:

Heat exchanger: shell and tube, plate heat exchanger, air cooler.

Furnaces and boiler.

Technology, operation, control system and safety equipment.

Storage tank: floating roof, fixed roof. Associated safety equipment.