

Training - Production Superintendent



PRODSI-EN-P



Face-to-face only



61 days

This certifying course provides the in-depth technical knowledge of Oil & Gas processing operations along with managerial and communication skills for qualifying to hold the position of production superintendents. The required high-level knowledge stretches over a wide range of issues in relation to reservoir, corrosion, inspection, maintenance, well performance, flow assurance...

Level

Skilled

Public

Professionals with a significant experience in Oil & Gas surface production who are called on to hold position of production superintendents

Objectives

Attendees will be able to implement the following skills:

- Describe the overall production process, from reservoir to offloading facilities
- Explain available tools and techniques for well performance enhancement and production optimization
- Explain state-of-the-art Oil & Gas production techniques
- Describe HSE management rules and responsibilities
- Acquire world class work methods and communication skills
- Anticipate anomalous events and react effectively to troubleshooting to avoid production loss

Pedagogical & technical resources

- Several applications and illustrations
- Intensive teamwork
- Use of dynamic training simulations
- Practical sessions with equipment in a workshop

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

INTRODUCTION

1 day

Welcome and program overview. Entry test. Units. Dimensions.

DOWNHOLE PRODUCTION - WELL PERFORMANCE - PRODUCTION FUNDAMENTALS

5 days

Fundamentals of reservoir engineering. Well testing. Fundamentals of drilling, completion and well servicing. Artificial lift (pumping, gas lift...) and well performance. Effluent behavior. Fundamentals of thermodynamics. Specifications. HSE management.

OIL, WATER & GAS PROCESSING

5 days

Oil processing: required specifications; stabilization; dehydration, desalting. Production and injection water treatment: quality requirements and associated treatments; operating conditions. Gas processing: required specifications; dehydration; hydrates, consequences and treatments; Natural Gas Liquids recovery. Oil & Gas sweetening. Liquefied Natural Gas, principles and liquefaction processes. Natural gas liquids treatments.

OFFSHORE DEVELOPMENTS, FLOW ASSURANCE

2 days

Offshore developments challenges, technology, techniques and production constraints. Fixed and floating production structures. Prevention of deposits in flowlines. Monitoring of multi-phase flows through flowlines.

METERING & ALLOCATION

2.5 days

Different types of metering. Importance of metering. Metering installation, data treatment. Single-phase metering: operating principle & equipment. Transactional metering of liquids and gases. Multiphase metering: operating principle and equipment.

CHEMICALS USED IN PRODUCTION ACTIVITIES

2.5 days

Introduction to chemical treatment in production field. Chemicals for oil and gas treatment. Chemicals for injection and produced water processing. Special operations.

PRODUCTION FACILITIES TROUBLESHOOTING, DYNAMIC SIMULATOR

5 days

Oral presentations of facilities actual malfunctions and teamwork investigation. Operations troubleshooting methodology and case studies: recognize a trouble when occurring; ISHIGAWA grid; methodological approach to identify causes and remedial options; PARETO graph; troubleshooting toolbox. Case studies on a dynamic simulator: wells and production lines; rotating equipment; crude oil and associated gas: operation and troubleshooting; production shutdown and restart.

BEHAVIORAL MANAGEMENT

5 days

Teamwork management, written and oral communication. Active listening and communication tools. Team cohesion and stress management. Problems analysis and investigation: tools and behaviors. How to better analyze and know oneself.

INSTRUMENTATION & PROCESS CONTROL - ELECTRICITY

5 days

Instrumentation and process control: functional blocks, symbolization; pneumatic, electrical and digital technologies; measurements, sensors, security equipment; control equipment, actuators; controllers and control loops; Distributed Control System (DCS): architecture, connections; Safety Instrumented Systems (SIS): HIPS, ESD, EDP, FGS. Electricity: generation (turbines, alternators, monitoring, troubleshooting); distribution (HT-BT networks, power supply, stability, constituents, cabinets, transformers, batteries, isolation, protections).

ROTATING MACHINERY

5 days

Pumps: pumping prerequisites (pressure, flowrate, head); centrifugal pumps (types, technology, auxiliaries, performances); volumetric pumps (rotating, reciprocating). Compressors: compression prerequisites (technology, auxiliaries, practical laws); centrifugal compressors (rotor, stator, bearings, shafts, seals balance); reciprocating compressors (frame, cylinders, pistons and rings, bearings, lubrication, cooling). Gas turbines: operating principles, compression, combustion, expansion, performances; technologies (compressor, combustion

chamber, turbine, internal cooling); auxiliaries. HSE concerns.

TERMINAL, FSO & FPSO

1 day

Overview of oil terminals. FSO & FPSO technologies. Metering of oil quantities.

CORROSION, INSPECTION & INTEGRITY

2 days

Corrosion mechanisms. Types of corrosions in the Oil & Gas industry. Corrosion prevention and monitoring, fundamentals of inspection.

HSE RISKS & MANAGEMENT

15 days

HSE risks, flammability, overpressure systems: PSV, flare and flare network, closed and open drains... Safety in operation: use of utilities, degassing/inerting, confined space entry, start-up and shutdown. Safety during construction and maintenance works: lifting & rigging, work at height, electrical safety... Work permit system. SIMultaneous OPerationS (SIMOPS) management... HSE management systems. Management of change. Downgraded situations. HSE referential and responsibilities. Safety engineering: HAZID, HAZOP, layout optimization and identification of major accidents. Risks matrix... Safety systems: HIPS, ESD, EDP, F&G, USS. Safety logic diagrams. Human factors. Safe operating philosophy and methodology. Incident analysis and reporting. Root cause analysis.

REVISIONS - ORAL ASSESSMENT

2 days

Sessions

Pau - From 2025/09/16 to 2025/12/10

45840 €/HT

Pau - From 2026/09/15 to 2026/12/08

45840 €/HT

Pau - From 2027/09/14 to 2027/12/08

46890 €/HT

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