

OFFSHORE FIELD DEVELOPMENT - - PIPELINES & FLOW ASSURANCE

Field Operations
Terminals - Offshore - Flow assurance

E- 540

OBJECTIVES

To provide technical knowledge on Oil & Gas offshore technology.

On completion of the course, participants know the:

- technology and selection criteria for the different structures used for offshore production activities.
- typical offshore development architecture.
- technology of pipelines, the laying techniques and the main operation problems.
- main problems of flow assurance.
- SHE constraints for offshore activities.

▲ Who should attend?

Engineers and technicians, whose activity is related to the design, construction and/or operation of Oil & Gas offshore production facilities.

COURSE CONTENT

CONTEXT OF OFFSHORE DEVELOPMENTS 0.25 day

Constraints specific to offshore production.

Present performances and future perspectives - Technological barriers.

FIXED AND FLOATING PRODUCTION STRUCTURES 0.25 day

Different offshore production structures: jacket, semi-submersible, SPAR, TLP, FPSO, ...

Selection criteria - Limitations.

Terminology: shallow water, deep offshore, ultra deep offshore, ...

CONSTRUCTION AND INSTALLATION OF PLATFORMS 0.5 day

Platform technology - Construction.

Platform installation techniques.

Examples of shallow water developments.

CASE OF DEEP OFFSHORE DEVELOPMENTS 0.5 day

Typical subsea architecture: subsea wellheads, well jumpers, production manifolds, production lines, production risers, preservation lines, umbilicals, ...

Role and technology of each piece of equipment.

Examples of deep offshore developments.

FPSO/FSO TECHNOLOGY 0.5 day

Technology of Floating (Production) Storage and Offloading vessels.

Ballast tanks - Atmosphere control.

Oil, methanol,... storage tanks - Blanketing system.

Storage tanks start-up procedures - Incidents.

Technology and operation of FPSO/FSO offloading (tanker loading) buoy.

PIPELINES: TECHNOLOGY, LAYING AND OPERATION 1.5 day

Main properties of single phase and multi phase flow.

Technology of pipelines: standards, material grades, insulation techniques and insulating materials.

Pipeline laying techniques (on shore and offshore) - illustrations.

Pipeline operation :

 Main flow assurance problems - Main available technical solutions.

 Pipe corrosion monitoring and prevention - Cathodic protection.

 Pipeline maintenance.

FLOW ASSURANCE 1 day

Main Flow Assurance problems for offshore production: hydrates, paraffins, sulfates, sand, slug, ...

Main technical solutions and preservation operations.

Intervention techniques in case of plugging.

SAFETY AND ENVIRONMENT IN OFFSHORE FACILITIES 0.5 day

Risk analysis.

SHE constraints during equipment layout studies - Common sense rules.

Safety Systems : Emergency Shut Down (ESD), High Integrity Pressure Protection System (HIPPS).

Environmental considerations.

▲ Duration

5 days

▲ Dates & Location

March 31 to April 04, 2008

Rueil-Malmaison (Paris)

▲ Tuition Fees

€ 1,940

▲ Course Coordinator

Franck BEIJER

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