

€ TRAINING

FPSO Marine





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Introduction:

The use of Floating Production Storage and Offloading FPSO has significantly increased in recent decades. FPSOs have lower cost relative to traditional offshore oil platforms. The latest FPSOs are used for developing deepwater oil fields and reserves where it is either not possible or not practical to install a fixed platform. It is crucial to understand the environmental and design aspects affecting the operation to operate FPSOs successfully. Also, beneficial to know all essential elements of FPSOs.

Program Objectives:

At the end of this program the participants will be able to:

- Engineers from different disciplines.
- Project engineers and managers.
- Managers and executives who are new to the FPSO industry.
- Operational & maintenance staff.
- Non-engineering personnel working in FPSO environment.

Targeted Audience:

- Engineers from different disciplines.
- Project engineers and managers.
- Managers and executives who are new to the FPSO industry.
- Operational & maintenance staff.
- Non-engineering personnel working in FPSO environment.

Program Outlines:

Unit 1:

Environmental and Design Aspects:

- History of FPSOs.
- Introduction to FPSO technology.

- FPSO Layout.
- Design and Operation Considerations.
- Codes and Regulations.
- Inspection and Maintenance Requirements.

Unit 2:

Environmental and Design Aspects:

- Environmental conditions.
- Mooring Lines and Anchors.
- Turrets and Swivel System.
- Pipeline Systems -Subsea Interfaces Subsea Umbilicals, Risers and Flowlines SURF and Subsea Pipeline installation.
- Marine & Structural Design Aspects.
- Lifesaving Appliances.
- Survival Craft.

Unit 3:

FPSO Storage and Offloading:

- Cargo Handling Systems -Cargo and Ballast System.
- Crude Oil Loading and Discharge Arrangements.
- Crude oil storage, crude oil washing COW.
- Flare and vent System.
- Cargo Tank Vent and Inert Gas System.
- Inverting Operation.
- Custody transfer requirements.
- Tank entry safety procedure.

Unit 4:

Utility and Power Systems:

- Marine, Utility, and Piping Systems.
- Offshore Electrical System.
- Gas Turbines.
- Development of Philosophies.
- Batteries and UPSs.
- Telecommunication.

Unit 5:

Health, Safety and Environment HSE:

- Safety in Operation and Maintenance.
- Machinery, Equipment and Safety Systems.
- Safety and Emergency Systems.
- Emergency shutdown systems ESD.
- Hazards Areas and Hazards Area Equipment.
- Fire Protection and Fire Detection.