ABI16110 – ABIOSH International FPSO & OIL RIG SAFETY MANAGEMENT COURSE

Become a certified Safety Assessor specialized in FPSO and Oil Rig operations! This in-depth certificate course equips you with the technical capacities and theoretical knowledge to develop yourself as a skilled, competent and certified HSE Personnel for FPSO, Shipyard, Marine and Oil Rig Projects.

Some of the areas to be covered include:

- Introduction to FPSO & Oil Rig Process.
- Types of Vessels (Offshore)
- Introduction to the Oil & Gas Industry
- Decision to Invest on Selection of yards, Construction, Commissioning and Decommissioning Activities (Birth to Death of a project)
- FPSOs
- Rigs Construction and Platforms
- Understanding FPSO Risk Management
- Audit and Reviews for FPSO/Rig Projects

WHO IS IT FOR?

- This course is relevant to individuals or companies dealing with FPSOs, Oil Rigs, Marine and Shipyards.

WE PARTICULARLY WELCOME:

- Managers, Engineers, Supervisors, Professionals and Safety Professionals who are involved in FPSO and Oil Rig Projects (Construction and Commissioning)

AIM OF THE COURSE

Working on FPSOs, Oil Rigs and Shipyards present in itself a whole different level of safety hazards and risks due to the unique environment. This course will provide participants with knowledge and skills to assess and mitigate risks to create a safer, more productive worksite.

LEARNING OBJECTIVES

On successful completion of the course, participants will be able to:

- Understand local legislations, regulations, standards and good practices
- Understand duties of an FPSO and Oil Rig Safety Assessor and good practices
- Understand Risk Assessment and mitigation
- Understand competence and authorization requirements
- Develop and comply with safe systems of work
- Gain a better understanding of the industry as well as projects in the yards
- Be able to plan out HSE activities for their projects from reviewing contractor systems to implementing campaigns and events
- Be prepared to carry out system audits and review scaffold safety requirements
- Understand the international standard and codes
- Be knowledgeable in hazard identification and elimination
- Gain advanced skills and knowledge in lifting and rigging safety
- Manage and audit risk management and risk assessment from contractors and vendors
- Understand the implications of risk management
- Know how to develop active and reactive monitoring systems
- Develop and implement emergency response systems
- Develop and implement HSE programs, campaigns and reviews.

MODULE CONTENTS

Module 1 Content

- Introduction to Cargo
- Cargo Planning and Cargo Operations
- Functional Areas of Maritime Logistics
- Ship's Crew
- Change Of Master, Officers
- Maritime Logistics and Concept
- Vessel Construction and Nomenclature
- Terms and Definitions

Module 2 Content

- Conversion Yard Details
- Tanker Conversion and Selection of Suitable Tankers
- Field layout
- Safety distances around FPSOs and Tanker maneuvering areas
- Mooring/Station Keeping
- Logistic Consideration- Mooring Supporting Structure
- Mooring Hazards
- Emergency response (ER) arrangements and Emergency Response Strategy (ERS)

- Guidelines on emergency response plans
- Offshore Personnel & Responsibilities and Team Responsibilities
- FPSO Offshore Instillations manager (OIM)
- FPSO Production Superintendent
- Design Principles for Health, Safety and Environment
- Hazard identification and Checklist for Hazard Identification
- Oil & Gas Leaks & Spillages
- Blowouts, Riser/pipeline leaks and Process leaks
- Non-process incidents- Fires, Spillage & leaks
- Marine events- Collisions, Failures & loss
- Structural events-Extreme loadings, Failures, Dropped objects (predominant activities), Object types
- Transportation accidents (crew changes or in-field transfers)
- Occupational accidents- Diving accidents
- Construction accidents – predominant activities

Module 3 Content

- FPSO Standards & Codes
- Regulatory regimes for FPSO operations
- Regulations, International Standards, and Recommended Practices
- Layout and General Arrangement of FPSOs -Deck Area and General Arrangement, Layout
- Tank Design and Arrangements
- Topsides, Mooring, and Export Facilities Design
- Construction Issues
- Topsides Facilities -Oil and Water Separation Facilities
- Gas Compression Facilities -Water Injection Facilities, Cargo Handling Systems
- Utility and Support Systems -Safeguard Systems
- Topsides Design Issues
- Hull Design Introduction, Hull modeling and analysis-Modes of operation
- Structural Analysis.
- Hull design criteria-Storage capacity, Stability, Strength and fatigue
- Tank Design and Arrangements
- Field Installation and Commissioning Issues
- Commissioning-Timing, Commissioning requirements, Pre-commissioning, Commissioning and Post commissioning
- Process Facility Design Parameters
- Limit-State Design Requirements
- Hook ups, export & Offloading Arrangements -Cargo Handling Systems , Tandem mooring – weather vaning FPSO
- Transfer System Options
- Methods of Export
- Emergency shutdown and release
- Parts & Equipment-Reusability of Existing Machinery and Equipment, Addition of New Components, Construction Issues, Equipment Testing Issues
- Scope- Risks and safe operating criteria
- Tank cleaning, Cargo tank purging and gas-freeing, Tank entry, Hose flushing

- Environmental conditions, Collision, Fire/Explosion, Oil pollution, Breakaway, Use of the FPSO systems, Use of a maintenance vessel, Offtake hazards, Offtake tankers pumping system
- Risk evaluation and management, Planning & execution of installation
- Planning & execution of delivery
- Cargo loading plans, Communication Plans & Discharge plan.

Module 4 Content

- Risk Management
- Legal OSH requirements and The Occupational Safety & Health Framework
- What are Hazards?
- What are Risks?
- Principles of Risk Management
- Risk Management Cycle (Standard-HSE UK)
- 10 Step Risk Assessment & Control Process
- Activity related Emergency Procedures
- Monitoring & reviewing
- Hazard identification and Categorization of Hazards
- General Principles of Prevention
- General Control Hierarchy
- Active Monitoring Systems Approaches to monitoring
- Active Monitoring & Reactive Monitoring
- Workplace Inspections
- Types and Frequency of Inspection- Routine inspections, Maintenance inspections, One-off equipment, etc. inspections, Safety inspections, Safety tours, Safety surveys
- Usage of Checklists
- HSE Response Systems
- Introduction to Corrective Action (CA) & Preventive Action (
- Emergency Response Systems
- Emergency Procedures and Developing Emergency Procedures
- Emergency Planning Team
- Legislation & Industry Codes of Practice
- Risk Assessment
- Planning Analysis
- Emergency plan: Assessment Procedures
- Emergency Plan - Activation.
- Emergency Plan - Evacuation Procedures
- Emergency Plan - Resource Mobilization emergency Plan – Reporting & Documentation
- Emergency Plan – Security Measures 38
- Emergency Plan - Incident Command Center
- Emergency Plan - Communication with the Public
- Emergency Plan - Communication System
- Emergency Plan - Contingency Plans
- Emergency Cover In Relation To Shift Work & Geographical Location
- Resources - Personnel & Equipment
- Agreements of Mutual Assistance

- Emergency Organization: Roles & Responsibilities
- Plan Administration
- Distribution of Plan
- ER Training
- Updating Plan
- Testing the Plan
- Fire Incident Case Study

Module 5 Content

- Reviewing Performance
- PDCA Cycle
- Review & Evaluation of Safety Performance of any organization
- Sample OSH Performance Report
- HSE Audits
- Underlying Key features of Health & Safety Management
- Performance Standards
- Distinction between Audits & Inspections
- Pre-Audit Preparations
- Information Gathering
- The Auditing Process
- Questionnaires
- Issues Addressed by HSE Program:
- Permit Details and Permit Checklists
- General Hazard Management

ASSESSMENT

- There will be MCQ and Written Assessment for this course

CERTIFICATE

- Upon successful completion, participants will be awarded a Certificate from **ABIOSH**

DELEGATE CATEGORY

The course is appropriate for all category of worker (**entry level, mid-level and senior level management staff / employee**) who work on FPSO, Shipyard or Oil Rigs and Marine industry.