



MOE129

Optimizing Oil & Gas Marine Terminals: Operations, Management, Maintenance & Safety

Course Introduction:

This five-day training course is essential for marine terminal personnel. All applicable marine terminal regulations (current & proposed) and policies pertaining to marine transfer operations and spill contingency planning will be discussed. Delegates will receive a solid foundation of the requirements for oil & hazardous materials facilities and transfer operations.

This course will concentrate on Oil & Gas Marine Terminals and will cover all Operational and Managerial requirements for Oil/Gas marine terminals from the Human factor up to Vessel/Tanker operations within the oil/gas industry. This will cover the On-shore/Off-shore Terminals, Hydrocarbon properties & handling, Regulations & Requirements, Terminal Planning, Vessel Operations, Terminal Management & Operations, Security & Safety and other essential topics related to Export/Import Oil & Gas.

The topics presented during this course will provide companies with the information necessary to meet current and proposed compliance requirements more economically while maintaining the highest level.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- ✓ Apply an in-depth knowledge on operations and management of oil and gas marine terminals
- ✓ Optimize the operations of oil and gas marine terminals
- ✓ Implement the international regulations and requirements for the oil and gas marine terminals and acknowledge the importance of the human factor in the operation and management of the marine terminal
- ✓ Apply proven safe practices and procedures during the various operations in oil and gas terminals and manage oil spill contingency and emergency response plans
- ✓ Gain a good terminal management skills and employ the various terminal support operations such as berthing support, cargo transfer support, emergency response and vessel departure support

Who Should Attend?

This course covers the systematic techniques of optimizing oil and gas marine terminals for marine terminal managers, superintendents, supervisors, engineers, port captains, custody superintendents, facility managers, facility training coordinators, safety & environmental managers/engineers/officers, spill management team members, transfer supervisors, marine shipping coordinators and dock maintenance planners.

Course Outline:

Day 1:

Cargo Properties

- Course Overview and Introductions
- Dangerous Cargos
 - Toxicity
 - Confined spaces
 - Breathable atmospheres

Hydrocarbon properties

- Crude oil
- Liquified Petroleum Gas
- Liquified Natural Gas

Fires & Explosions

- UEL & LEL
- BLEVE
- Pancake cloud explosions

Day 2:

Storage & Transfer

- **Storage Tanks**
 - Atmospheric aboveground storage tanks
 - Floating roof, fixed roof, variable vapour space and pressurized tanks
 - Tank inspections & cleaning
- **Transfer Systems**
 - Centrifugal pumps design and operation
 - Piping systems

- Flow and pressure matching
- **Ship-shore Transfers**
 - Marine Loading Arms
 - Lightering
 - The Ship/Shore Safety Checklist

Day 3:

- **Harbour & Vessels**
- **Jetties, quays, wharves & SBMs**
 - Harbour design and construction
 - Sizing & tidal effects
 - Depth constraints & dredging operations
 - SBM design & construction
- **Hoses**
 - Cargo compatibility
 - Marking & testing
 - Storage & maintenance
- **Shipboard management**
 - Disposal of tanks washings, slops & dirty ballast
 - Bunkering
 - Communications & emergency response plans

Day 4:

- **Safety and Risk**
 - Ignition sources
 - Electrostatic charge
 - Hazardous zone classification
 - Intrinsically safe equipment
- **Firefighting & protection**
 - Fire detection systems
 - Firefighting systems
 - Shipboard firefighting systems
- **Risk**
 - Risk assessments

- Risk management
- Qualitative and quantitative risk assessment techniques

Day 5:

- **Terminal Management**
 - Storage & transfer planning
 - Berthing support
 - Cargo transfer support
 - Emergency response
 - Vessel departure support
 - Security and vessel access
 - International regulations & requirements for oil & gas marine terminals

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Fees:

To be advised as per the course location. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session

