



HSE221

Oil Spill Management and Response

Course Introduction:

Oil is a complicated compound consists mainly of hydrogen, carbon and sulfur. Sulfur compounds have Poisonous characters and have ability to dissolve in water that harms marine organisms and changes the marine environment. This course will give sound overview of oil spill risk, prevention, response and clean-up, in order to increase awareness and understanding of the best practices relating to the recognition of Oil Spill Hazards, Causes, Fate and Strategies for dealing with oil spills.

Course Objectives:

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

- Understand and obtain knowledge on oil spill management and response
- Provide skills and knowledge required to oil spill response in order to reduce the effect of spillage
- Combat the marine oil pollution and cleaning of beaches
- Understand the principles of oil spill response and contingency planning
- Understand the correct spill response methods and techniques by experiencing a practical deployment exercise

Who Should Attend?

This course is intended to any participants who wants to gain a basic understanding of marine oil pollution, combating strategy, combating equipment and cleanup practices.

Course Outline:

Day 1:

Pre-Test

Oil Spill Health & Safety Issues

- Basic rules for workers (HSE site plan)
- Communications and signals
- Risks
- Fire and Explosions
- Hazardous atmospheres and selected contaminants
- Cleaning solvents, Remediation Chemicals and Dispersants
- Heat and cold stress and first aid

- Protective equipment and clothing
- Respiratory protection and confined spaces
- Transportation safety – Land, Sea and air

Physical & Chemical Properties of Oil

- Causes of spills by size
- Properties of Oil
- Hazards associated with oil spills
- Oil Spill Risk
- Fate of Spilled Oil
- Surface movement of oil at sea

Day 2:

Contingency Planning

- Benefits of implementing and developing contingency plan
- Response according to spillage level
- Sensitivity maps preparation
- Equipment and supplies
- Oil recovery management

International Convention

- MARPOL 73/78
- PARCELONA 76
- Protection of red sea & Eden gulf 1982

Day 3:

Spill Evaluation

- Causes of spills by size
- Oil Spill observation and surveillance
- Estimating the amount spilled
- Oil Spill Volume

Policy of Response

- Response Priorities
- Cleanup Priorities

Day 4:

Spill Management

- Oil spill combating equipment
- Offshore and Near Shore cleanup
- Principles of using Booms: Design, Selection and uses limitations, Deployment and Configuration
- Booming at Sea
- Effects of currents on boom angle
- Shoreline booming
- Use of booms
- Components of a boom
- Boom types and selection
- Boom deployment guidelines
- Skimmer selection matrix
- Skimmer types
- Vacuum trucks
- Floating tanks
- Pumps
- Sorbets

Dispersant

- What is a dispersant?
- Mechanism of chemical dispersion
- Advantages and disadvantages
- Application guidelines
- Dispersant effectiveness
- Aircraft

Day 5:

Shoreline Cleanup

- Sensitivity
- Shoreline protection techniques
- Exclusion booming
- Diversion booming
- Sorbet booming and barriers

Types of Beaches and Cleanup

Environmental Impact of Oil Spill

Course Certificate:

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

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 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 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