

**Training Title**

**OIL SPILL MANAGEMENT & EMERGENCY RESPONSE**

**Training Duration**

5 days

**Training Venue and Dates**

REF			19 - 23 May		
HS035	Oil Spill Management & Emergency Response	5	2025	\$6,000	Singapore

In any of the 4 or 5-star hotels. The exact venue will be informed later.

**Training Fees**

- \$6,000 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

**Training Certificate**

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

Language: English

**TRAINING OVERVIEW**

Oil spills pose significant threats to both the environment and human health, necessitating well-coordinated and effective management strategies. Understanding how to manage and respond to oil spills is crucial for minimizing damage and ensuring a swift recovery. Here’s an overview of key concepts in oil spill management and emergency response:

1. **Understanding Oil Spills:** Oil spills occur when petroleum products are accidentally released into the environment, often from ships, pipelines, or storage tanks. These spills can vary in size and impact, from small, localized incidents to large-scale disasters affecting vast ecosystems.
2. **Immediate Response Actions:** The initial response to an oil spill is critical and involves several steps:
  - **Notification:** Alerting relevant authorities and emergency services.
  - **Assessment:** Evaluating the size, type, and location of the spill to determine appropriate actions.
  - **Containment:** Using barriers, booms, or other methods to prevent the oil from spreading.
  - **Recovery:** Employing techniques like skimmers and vacuums to remove the oil from the water or shorelines.
3. **Response Strategies:** Effective response involves a combination of strategies tailored to the specifics of the spill:
  - **Mechanical Methods:** Physical removal of oil using equipment like skimmers and absorbents.
  - **Chemical Methods:** Application of dispersants to break up the oil into smaller droplets, facilitating natural degradation.

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- **Biological Methods:** Encouraging the growth of microorganisms that naturally degrade oil, a process known as bioremediation.
- 4. **Environmental and Health Considerations:** Oil spills can have severe environmental impacts, affecting marine life, birds, and coastal habitats. The health risks associated with oil spills include exposure to toxic chemicals and pollutants. Response efforts must therefore address both environmental protection and human health concerns.
- 5. **Recovery and Restoration:** After the initial response, efforts shift to recovery and restoration:
  - **Clean-Up:** Continuing to remove oil from affected areas and managing waste materials.
  - **Assessment:** Monitoring the long-term environmental impact and assessing the recovery of affected ecosystems.
  - **Restoration:** Implementing measures to restore and rehabilitate damaged habitats and communities.
- 6. **Preparedness and Planning:** Effective oil spill management relies heavily on preparedness:
  - **Contingency Planning:** Developing and regularly updating oil spill response plans.
  - **Training and Exercises:** Conducting drills and training programs for responders and stakeholders.
  - **Collaboration:** Coordinating with governmental agencies, environmental organizations, and local communities.
- 7. **Regulatory and Legal Framework:** Oil spill management is governed by various regulations and laws designed to prevent spills and ensure effective response. Familiarity with these regulations is essential for compliance and effective management.

### TRAINING OBJECTIVES.

This course aims to provide personnel with significant management responsibilities under the relevant contingency plan with the appropriate management tools to coordinate and supervise response operations and deliver an organized and effective response to an oil spill and other major incidents.

*At the end of the course, participants should know of:*

- Overview of spill response
- Oil spill behavior, fate, and effects
- Containment and recovery of spilled oil
- Dispersants
- Contingency planning, response management, and organization
- Spill assessment
- Transfer, storage, and disposal
- Liability and compensation
- Top Table exercise

### WHO SHOULD ATTEND?

- Senior Managers and Crisis Management Team
- HSE personnel
- Operational staff & Supervisors

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**TRAINING METHODOLOGY:**

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and share in developing the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available daily to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work & Practical Exercises
- 20% Videos & General Discussions

**COURSE CONTENTS AND TIME SCHEDULE**

**Day 1**

**OIL SPILL**

- ✦ Introduction to Oil Spill
- ✦ Source of Oil Spill
- ✦ Oil Properties: (density, sp.gr., viscosity, flash point, Pour point, boiling point, solubility, etc.,).
- ✦ Fate of Oil Slick / Oil Slick Behavior.
- ✦ Oil Slick Migration/movement / Reporting spill
- ✦ Assessment of the Slick Drift / Quantification of Oil Spills
- ✦ Logistics/ Maintenance / Communication

**OIL SPILL INCIDENTS**

- ✦ The major Oil Spill Incidents

Amoco Cádiz

Exxon Valdez

Sea Empress

Erika

Prestige

- ✦ Statistics for Oil Spill Incidents.
- ✦ Video movies: Exxon Valdez and Erika – Two major oil spill incidents

**Day 2**

**EFFECT OF OIL SPILL ON MARINE AND COASTAL RESOURCES**

Ecotoxicology

Bioaccumulation and tainting

Recreational beaches and sea areas

Fisheries

Fishing Farming

Seaweed Cultivation

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Marine animal  
Marine Birds  
Coral Reefs  
Ports

### OIL SPILL CONTINGENCY PLANNING

- ✦ Introduction to Oil Spill Contingency Plan
- ✦ Contingency Plan Elements
  - Hazard Identification
  - Vulnerability Analysis
  - Risk Assessment
  - Response Actions
- ✦ Management of OSCP
  - 1) Combating strategies
  - 2) Containment of oil
  - 3) Recovery of oil
  - 4) Chemical Dispersant
  - 5) Practical and Tabletop exercises

### Day 3

- ✦ Tired Response
  - Tier I
  - Tier II
  - Tier III
- ✦ Approving the use of dispersants
- ✦ In Situ Burning
- ✦ Waste Management, storage, and disposal
- ✦ GIS

### TRAINING, DRILLS, AND EXERCISES

### CONTAINMENT OF OIL SPILL

- 1) Introduction to Oil Spill Containment equipment (BOOMS)
- 2) Types of booms
- 3) Physical properties of booms
- 4) Escape of oil from booms
- 5) Deployment of booms
- 6) Mooring of booms

### Day 4

### RECOVERY OF OIL SPILL

- ✦ Introduction to Oil Recovery Systems
- ✦ Suction Devices
- ✦ Oleophilic Skimmers
- ✦ Induction Devices

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- ✧ Pumps
- ✧ Vacuum Trucks
- ✧ Manual Recovery
- ✧ Oil Storage Tanks
- ✧ Debris Removal Equipment
- ✧ Safety Precautions
- ✧ Sorbents

#### **ASSESSMENT AND EVALUATION OF OIL SPILL**

- ✧ Factors to be considered in Threat Assessment
- ✧ Identification of source and Incident details
- ✧ Aerial surveillance and Remote Sensing
- ✧ Prevention or Reduction of further spillage

#### **Day 5**

#### **INTERNATIONAL CONVENTIONS AND LEGISLATIONS**

- IMO
- MARPOL 73/78
- London Convention
- OSPAR 1992
- OILPOL 54
- SOLAS
- Tanker safety regulations
- Fund
- OPRC

#### **NOTE:**

**Pre & Post Tests will be conducted**

**Case Studies, Group Exercises, Group Discussions, Last Day Reviews and assessments will be carried out.**

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P.O BOX 45304  
ABU DHABI, U.A.E

T +971 2 6264455  
F +971 2 6275344

[www.definettraining.com](http://www.definettraining.com)