

## 17. TRAINING AND DRILLS

The objective of the training and exercise program is to ensure that the all designated response personnel are able to respond to a spill in a quick and competent manner. Response personnel named in emergency response plans will be trained on the plans themselves. In addition to the experience and the job training, personnel in supervisory and key advisor positions may attend formal training courses germane to their positions.

Periodic drills and exercises will be conducted to ensure that response personnel retain familiarity with procedures and experience. In addition, the drills ensure that personnel are familiar with the most current procedures. The regional response plans for Chad and Cameroon will be exercised in accordance with the spill exercise schedule (see Section 17.6). A response to an actual incident may take the place of a scheduled response drill if the actions required are deemed to have exercised the response plan to a high degree.

The in-country Operations Manager is responsible for ensuring that appropriate personnel are trained on the implementation of this GOSRP and on appropriate ASOSRPs. They will also identify any supplemental or formal training deemed appropriate for response personnel. Area-specific drills will be coordinated by the appropriate Operations Manager in close contact with the General Manager.

The In-Country General Manager is responsible for ensuring that Tier 2 and 3 personnel have appropriate training. The General Manager will coordinate with the appropriate Operations Manager(s) for any drill involving the activation of the multiple EMTs and possible use of out-of-country resources or expertise.

### 17.1 Training Objectives

Spill training programs are meant to ensure the safety of the Project and contracted personnel, to mitigate or prevent discharges, and to effectively reduce the effect of a spill on property and the environment. The Project Safety Department ensures that spill response and related training is given to all employees that handle oil or hazardous liquids, or that operate in the vicinity of these products. The training program explains in detail how to implement the project's prevention and oil spill response plans by describing response actions to be carried out under the plans.

Tier 1 training provides the skills and safety measures for facility ERTs to intervene in spill control, establish defensive tactics to contain the spill, and to recover and cleanup affected areas. The Tier 2 personnel comprise the Tier 1 responders as well as reinforcements for both field operations and incident management. Tier 3 responders are primarily incident management team members, technical support, and specialists. Tier 3 personnel are trained primarily through their experience and training programs outside of this GOSRP.

Training is provided for Project and contracted personnel based on their level of possible intervention in a spill and their responsibilities for response (Table 17-1). Key areas in which basic spill response training is provided include:

- Plan Familiarization and Response Strategies
- Health and Safety Training (HAZWOPER)
  - Emergency Response
  - Post-Emergency Response

- Response Equipment Use and Maintenance

Specialize training modules are also offered to appropriate personnel. These specialized modules offer an in-depth review of specific spill response activities. The modules may be offered through in-country classroom training, through video or remote extension programs, or at other out-of-country locations. Examples of specialized training modules are:

- Incident Command System
- Shoreline Assessment Team
- Dispersants Use and Applications
- *In-situ* Burning as a Spill Countermeasure
- Wildlife Hazing, Capture and Management
- Upper Level Incident Command System (ICS) and Crisis Management Training

In addition to formal classroom and self-paced training programs, regular exercises and drills enable the ERTs to practice response techniques and procedures, to test and utilize equipment, and to review the functionality of this GOSRP and ASOSRPs. Details of the basic spill-training program are provided in the following sections.

**Table 17-1. Summary Training Guidelines for Response Personnel**

Course	General Work Force	Maintenance Areas / ERT	OSIC*	Supervisors & Management	Contractors & Technical Specialist
<b>Plan Familiarization</b>	ASOSRP Annual	ASOSRP Annual	ASOSRP Annual	GOSRP Annual	-----
<b>Health &amp; Safety**</b>	Awareness — Level 1 Annual	Operation & Technician — Levels 2-3 Annual	OSIC — Level 4 Annual	Operations — Level 2 Annual	As appropriate credentials
<b>Spill Equipment</b>	Introductory One-time for new personnel	Annual	Annual	Introductory One-time	As appropriate credentials

\* on-scene incident commanders

\*\* Refer to Section 17.3

## 17.2 Plan Familiarization Training

Plan Familiarization Training is offered to all Project personnel with any responsibility for spill prevention and response. The initial 8hour training session provides a detailed review of both this GOSRP and the appropriate ASOSRPs. After having received the initial course, ERT personnel will receive an annual refresher in Plan Familiarization that is incorporated into their annual HAZWOPER refresher (see Section 17.3).

The major elements of the Plan Familiarization Training program include plan organization, emergency notifications, immediate spill response procedures and activities, ERT responsibilities, incident management, and decision-making, response

resources, scenarios and strategies, training and exercise requirements, and plan review and maintenance.

### **17.2.1 Key Training Elements**

1. Notification procedures and requirements for facility and company management, emergency response teams, government agencies, and the information required for those organizations.
2. Communication system(s) used and available for notifications.
3. Information on the products stored, used, or transferred by the facility, including familiarity with the Material Safety Data Sheets (MSDSs), special handling procedures, health and safety hazards, and spill and firefighting procedures.
4. Facility personnel responsibilities, and procedures for use of facility equipment which may be available to mitigate or prevent an oil discharge.
5. Specific procedures to shut down affected operations.
6. Procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios:
  - Tank overfill;
  - Tank rupture;
  - Piping or pipeline rupture;
  - Piping or pipeline leak; both under pressure and not under pressure, if applicable;
  - Explosion or fire;
  - Equipment failure; and
  - Failure of secondary containment system.
7. The operational capabilities of the ERTs to respond to a:
  - Small discharge;
  - Medium discharge; and
  - "Most-Creditable Event" large discharge
8. Name of the On-Site Incident Commander (Facility Supervisor) and how to contact him or her.
9. General responsibilities and authorities of the On-Scene Incident Commander as described in this GOSRP and the ASOSRP.
10. The organizational structure that will be used to manage the response actions, including:
  - Command and control;
  - Public information;
  - Safety;
  - Liaison with government agencies;
  - Spill response operations;
  - Planning;
  - Logistics support; and

- Finance

11. The exercise program (Section 17.6) that would be conducted regularly by the ERTs.

12. Complementary Emergency Plans for the area in which the facility is located.

### **17.3 Health and Safety Training — Emergency Response**

The basic health and safety training program is generally conceived following U.S. Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER), as modified for marine oil spill response. Distinct training requirements for different levels of emergency response include:

- First Responder Awareness (Level 1),
- First Responder Operations (Level 2),
- Hazardous Materials Technician (Level 3),
- On-Scene Incident Commander (Level 4),
- Skilled Support Personnel, and
- Specialist Employees.

The general requirements for each level are summarized below, and suggested training topics specific to marine oil spill response are included. Note that although job categories are suggested under each training level, training should be based on expected duties rather than job titles.

#### **17.3.1 Level 1 Training**

First Responder Awareness Level training is required for workers who may discover a spill and are simply expected to report it to the proper supervisory level, *but who have no probability of contacting the spilled oil*. Such responders take no further action beyond notifying management of the release (e.g., security personnel).

No minimum number of training hours is required for this level; however, First Responders Awareness Level trainees need sufficient training or experience and annual refresher training to demonstrate competency in the following areas:

- An understanding of the hazards of petroleum products and other site-specific hazardous substances, and the risks associated with them in an accidental release.
- An understanding of the potential outcomes associated with an oil spill (fire and explosion hazards; safety hazards including confined space entry, electrical hazards, powered equipment hazards, walking-working surface hazards, and water safety precautions).
- An understanding of the role of the First Responder Awareness Level individual in the ASOSRP, including site security and control.
- The ability to realize the need for additional resources and to make appropriate notifications to the communications center, such as providing tank identification labels.

Suggested training curriculum includes: types of oil or petroleum products and their toxic components, such as sulfur and benzene, and the health and safety aspects of each component; volatility of various petroleum products and the effects of weathering; general

fire and explosion hazards associated with various petroleum products. MSDSs covering the appropriate stored and shipped petroleum products should be reviewed.

### **17.3.2 Level 2 Training**

First Responder Operations Level Training is required for workers who contain or control an oil spill at a safe distance or in a low hazard area. Such workers are part of the initial response to protect nearby persons, property, or the environment from the effects of the oil spill. Their function is to keep the spill from spreading and prevent exposures. Such workers may include:

- Local ERT personnel
- Containment boom deployment personnel
- Skimmer operators
- Manual oil recovery workers
- Workers who apply sorbent or fertilizer for bioremediation
- Oil spill response vessel (OSRV) crews and workers

Training requirements include a minimum of eight hours of initial training or demonstrated competency and annual refresher training. First Responders Operations Level must demonstrate competency in the following areas:

- First Responder Awareness Level knowledge
- Knowledge of the basic hazard and risk assessment techniques (recognition of skin, ingestion, and inhalation hazards; determination of oil types and properties; assessment of size product, source, and magnitude of spill; health and safety consideration of new technologies applied to spill control; hazards associated with working in hot and cold temperature extremes)
- Knowledge of selection and use of personal protective equipment (PPE) and personal flotation devices (appropriate PPE to protect against dermal exposure and inhalation; selection, use, cleaning, and limitations of gloves, protective clothing, and respirators)
- An understanding of basic hazardous materials terms
- Knowledge of basic control, containment and/or confinement operations within the capabilities of the available resources and PPE (causes of oil spills and options to stop flow of oil; selection and use of booms and skimmers; selection and use of dispersants, sorbents, and bioremediation methods)
- An understanding of the relevant standard operating procedures and termination procedures from the vessel or facility's site safety and health plan.

### **17.3.3 Level 3 Training**

Hazardous Materials Technicians Level Training is required for workers who assume an aggressive role to actively stop a spill. These specialized members of the ERT are trained in the use of chemical protective suits and related equipment. These workers would enter the spill area with the intent to patch, plug, cap, or otherwise stop the spill at its source.

Hazardous Materials Technicians require a minimum of 24 hours of training and annual refresher training. These individuals must demonstrate competency in the following areas:

- First Responders Operations Level knowledge
- Implementation of actions consistent with the ASOSRP and the company's standard operating procedures, including emergency notification procedures and follow-up communications
- Classification, identification, and verification of known and unknown materials by using field survey instruments and equipment (use and limitations of field survey instruments such as hydrogen sulfide gas detector, oxygen meter, and colorimetric detector tubes; hands-on experience with written and electronic information relative to emergency response decision-making)
- Knowledge of selection and use of specialized chemical PPE (field practice in donning and doffing protective equipment, such as respirators, to a level commensurate with the worker's anticipated job function)
- Understanding of the principles and practices for analyzing an incident to determine the hazards present, the likely behavior of the spilled oil, and the types and selection of the appropriate defensive strategy for containing the release
- Ability to perform advanced control, containment, and/or confinement operations within the capabilities of the available resources and PPE (specific procedures to shut down affected operations; procedures to follow in the event of failure of secondary containment or in the event of fire or explosion; establishment of control zones, decontamination stations, and medical surveillance stations)
- Implementation of decontamination procedures (procedures for setting up facilities for decontamination of personnel; restoring equipment to pre-spill condition; storage and disposal of oil waste)
- Hands-on experience with manufacturer MSDS, shipper or manufacturer contacts, and other relevant sources of information addressing the oil released.

#### **17.3.4 Level 4 Training**

On-Scene Incident Commander training is required for those who assume control of the emergency response scene. The on-scene incident commander is the individual who, at any one time, is responsible for and in control of the response effort. Any emergency responder expected to direct field activities in the spill area must be trained to fulfill the obligations of the position. Such workers may include:

- OSIC
- On-water Operations Supervisor
- Cleanup Operations Supervisor
- Containment & Recovery Supervisor
- Field Activities Supervisor

These individuals would possess a minimum of 24 hours of training and annual refresher training. On-Scene Incident Commanders must demonstrate competency in the following areas:

- First Responder Operations level knowledge
- Ability to analyze an oil spill incident to determine the magnitude of the response problem
- Ability to plan and implement the appropriate safety and control plan within the capabilities of the available personnel and equipment

- Ability to reevaluate the progress of the emergency response to ensure that the response safety objectives are being met
- Ability to adjust the response plan to the conditions of the response and to notify higher levels of response when needed
- Knowledge of the hazards and risks associated with employees working in chemical protective clothing (heat stress, safety hazards associated with restricted movement)
- Knowledge of the value and methods of decontamination (familiarity with the requirements for assuring appropriate decontamination of personnel and equipment)
- Knowledge of company requirements for storage and disposal of oily waste.

### **17.3.5 Certification and Refresher Requirements**

Employees trained in First Responder Awareness, First Responder Operations, Hazardous Materials Technician, and On-Scene Incident Commander levels must receive annual refresher training of sufficient content and duration to maintain their competencies, or must demonstrate competency in those areas at least yearly. The In-Country Operations Manager will ensure that there is a process for documentation or certification of an employee's work experience and/or training meets the HAZWOPER requirements. Each Facility Supervisor will keep a written document which clearly identifies the employee, the person certifying the employee, and the training and/or experience that meets the requirements.

### **17.3.6 Contracted Personnel Safety Training**

#### **Skilled Support Personnel**

Skilled Support Personnel Training is required for workers who are skilled in the operation of specialized equipment, needed temporarily to perform immediate support work. All appropriate precautions provided to Project employees would be used to assure the safety and health of contracted personnel. These personnel may become involved during the emergency response phase or they may participate only after a site characterization has been completed and the Safety Advisor has determined a low magnitude of risk. If the worker's activities involve only the post-emergency response, the training requirements further described in Section 17.4 would apply. Skilled support personnel may include:

- Crane operators
- Vacuum truck operator
- Longshoremen
- Earth-moving equipment operators
- Boat or ship's captain and other crew members not actually handling spill containment equipment

No minimum training hours are required for Skilled Support Personnel, however they may receive an initial briefing at the spill site prior to their participation in any emergency response. The briefing should include instruction in:

- The use of appropriate PPE
- The type of chemical hazards present (reference the MSDS for spilled petroleum product)
- The individual's duties

## **Specialist Employees Training**

Specialist Employees Training is required for workers who provide technical advice and assistance. This category applies to workers who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances. Such workers may include:

- Environmental experts
- Field medical personnel
- Industrial hygienists and other safety and health personnel
- Shipper's expert; cargo owner representative
- Animal handlers and those cleaning wildlife
- Field security personnel
- Governmental investigators evaluating the incident scene

There are no minimum training hours. However, Specialist Employees must receive training or demonstrate competency in the area of their specialization annually. The annual training should cover those areas needed to keep Specialist Employees current in their respective fields relative to safety and health hazards involving oil spills. As is the case with all oil spill response workers, Specialist Employees should receive adequate training about the site health and safety hazards to perform their jobs safely. Training should cover the care and use of PPE (including respirators) and workers should understand their role in the incident command system.

### ***17.4 Health and Safety Training- Post-Emergency Response***

The second phase in oil spill response is the post-emergency response phase. This phase typically includes limited containment, oil recovery, and shoreline cleanup activities. The post-emergency response phase is conducted after a spill site has been characterized and determined as safe by the Safety Advisor for personnel working with protective clothing. In many oil spills the emergency response and post-response phases proceed simultaneously at different sites within the response area. Depending upon weather, size of spill, location, and many other factors, oil spills can quickly spread over a large area and require a large number of workers for removal of the oil. Weathered oil that has been determined not to pose inhalation or fire/explosion hazards can be safely removed and responded to by workers with less training than that required of emergency phase workers. Once the site has been characterized as safe to work in basic PPE, the OSIC or Incident Commander may designate operations at or near the source of the spill as part of the emergency response, while designation other actions as post-emergency response.

#### **17.4.1 Contracted Labor**

A minimum of four hours of training is acceptable when the magnitude of the health and safety risk is low, that is health risks from skin absorption are minimal and no respiratory protection is needed. Before workers in this category are allowed to begin work, the cleanup area must be monitored and fully characterized by a qualified person. Monitoring must indicate that exposures are under permissible exposure limits (PELs) and other published exposure limits, and are expected to remain below these limits. Workers in this category may include:

- Temporary beach cleanup laborers and volunteers

- Shoreline cleanup equipment operators

Although the number of training hours may vary, a minimum of four hours is considered to be appropriate in most situations. Training should cover as a minimum:

- The MSDS for the spilled petroleum product should be reviewed
- A review of the emergency action plan, including emergency escape procedures and the preferred means of reporting fires and other emergencies
- Operating procedures to follow in order to perform the cleanup safely (Topics to be covered include: use and limitations of gloves and protective clothing, if required; site-specific procedures for handling, storage, and disposal of oily waste, and other information as needed to ensure the health and safety of individual workers)
- Decontamination procedures as they apply to these workers (the importance of preventing the spread of contamination)
- Hazards of working in temperature extremes (exhaustion, heat stress) and water safety
- Safety hazard controls in place at the site

### ***17.5 Response Equipment Use and Maintenance***

ERT personnel shall receive initial training on the use, maintenance, and repair of spill response equipment maintained in their inventory. As deemed necessary, personnel may go through refresher training; however, use of equipment as part of the regular exercise schedule (outlined below) is expected to keep these personnel proficient with the equipment. Key training areas for equipment use and maintenance include:

- Pumps and skimmers
- Boom connectors and anchoring
- Small boat engines and handling
- Radios and base stations
- Generators, compressors, and power packs

## 17.6 Exercises & Drills

Field Facility, Pipeline Maintenance Areas and FSO Superintendents and the appropriate Operations Manager shall verify that the exercises and drills are conducted as outlined in Table 17-2.

### 17.6.1 Notification

Notification exercises will be conducted quarterly for response personnel designated by the In-country Manager. These quarterly exercises generally are limited to the notifications required of a Tier 1 response: the Area ERT, Facility Supervisor, Operations Manager, and Government Agency. Once a year, the notification exercise would encompass Tier 2 responders. At least one quarterly notification exercise will be conducted outside normal business hours and at least one exercise will include external government contacts. As appropriate, notification exercises involving external government contacts may be extended to include government-to-government contacts such as in the case of an International Water Ways incident.

Table 17-2. Spill Exercise Schedule

EXERCISE/DRILL	FREQUENCY	PARTICIPANTS
Notifications & Call-outs	Quarterly	Designated field facility or pipeline MA / FSO
Emergency Procedures Review	Semi-annually	Designated field facility or pipeline MA / FSO
Field Equipment Deployment	Annually	Designated field facility or pipeline MA/FSO
Emergency Management Team Tabletop	Biannually (2 yrs)	Both TOTCO/EEPCI and/or COTCO
Project-Wide Deployment and Tabletop	Triennially (3 yrs)	Tier 2 personnel and designated field facility or pipeline MA/FSO

### 17.6.2 Emergency Procedures Review

Emergency procedures review exercises will be conducted semi-annually and may be in concert with the notification exercises. The emergency procedures review exercise is for all ERT personnel. This review generally consists of a briefing and meeting, or walk-through, to discuss spill prevention and mitigation procedures and emergency response procedures for the facility.

### **17.6.3 Field Equipment Deployment**

Equipment deployment drills will be conducted annually by each Area ERT for a defined scenario in ASOSRP. These exercises shall encompass the activation of members of the ERT, select personnel of the EEPIC/TOTCO and/or COTCO Emergency Management Team (EMT), and the deployment of limited spill response equipment. The objectives of these drills include use and familiarity with spill equipment under on-scene conditions and testing of response countermeasures tactics in the scenarios of the ASOSRPs.

### **17.6.4 Emergency Management Team Tabletop**

Tabletop exercises are conducted biannually for key members of the ERT and EEPIC/TOTCO and/or COTCO EMT. The Project will involve Government representatives in the tabletop exercises, as appropriate. These management team exercises would typically include the development of a scenario designed to address the following types of issues associated with emergency response management activities:

- Knowledge of the GOSRP and appropriate ASOSRP
- Proper notifications
- Communications system
- Coordination of other EEPIC/TOTCO and/or COTCO EMT response personnel with Area-specific ERT
- Ability to effectively coordinate with potential responders and agencies outside of the Project
- Ability to obtain prompt customs clearances
- Implementation of emergency shutdown procedures, including evacuation of non-essential and essential personnel
- Identification and protection of sensitive areas and resources
- Initiation of surveillance operations
- Establishment of an Incident Command Post and staging sites
- Conduct of detailed incident assessment
- Organization of response operations
- Identification of appropriate response resources
- Conduct of waste storage and disposal planning.

The EMT Tabletop exercise may satisfy Notification and Equipment Deployment exercises if these are designed to be an objective of the exercise activities.

**17.6.5 Project-Wide Deployment and Tabletop**

Every three years Project management shall select a scenario that would be used to test equipment deployment and incident management objectives. Optimally, these scenarios would represent the “most credible event” spill conditions as identified in the GOSPR or in ASOSRPs. These exercises may include multiple ERTs, the EEPCI/TOTCO and/or COTCO EMT, local technical support, Government agency representation, and possible involvement of candidate organizations, such as CNA, OSRL, and other Tier 2 or 3 response support. This exercise would be authorized and coordinated by the General Manager in conjunction with the appropriate Operations Manager.

Actual response to a Tier 2 spill incident may be substituted for this required triennial exercise.

**17.7 Records**

Spill response training and exercise records will be maintained by appropriate personnel. Table 17-3 identifies who will retain each document and the time period for retention.

**Table 17-3. Document Retention**

Material Generated by Project — Specific to Procedure	Responsible for Retention	Retention Period (Check One)	
		Category I	Category II
GOSRP and ASOSRPs	General Manager	<b>x</b>	
Spill Response Training Records	Operations Manager		<b>x</b>
Emergency Preparedness Drill and Exercise Reports	HSSE Manager		<b>x</b>
Legend: Category I — Project life Category II — 7 years			