

Guidelines for Offshore Oil Spill Response Plans

**Guidance for Offshore Oil and Gas Exploration,
Production and Pipeline Facility Operators**

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Guidelines for Offshore Oil Spill Response Plans—Introduction

Summary of the Guideline

Purpose

The unprecedented oil spill of 2010 in the Gulf of Mexico clearly emphasized the need for enhancements in oil spill planning and preparedness for the offshore oil and gas industry.

Guidelines for Offshore Oil Spill Response Plans (Guideline) is API's recommendation for development of future oil spill response plans for offshore oil and gas exploration, production, and transportation (pipeline) operators. With the exception of a limited amount of offshore-specific information, this guideline can also be applicable to other coastal/marine facilities as well as international offshore and marine operations.

To prepare this Guideline, the **API Oil Spill Preparedness and Response Subcommittee – Spill Planning Work Group** considered available oil spill planning and preparedness materials, including existing domestic (U.S.) and International guidance as well as each member's knowledge and experience. The Work Group also considered the current regulatory environment for offshore and coastal U.S. oil spill planning while developing the Guideline.

The Guideline is not meant to be a regulatory requirement, nor is it limited to compliance with current U.S. Oil Spill Response Plan regulations. Rather, it is an assimilation of the current best practices in oil spill planning and preparedness.

The Guideline is intended to provide plan developers with layout and content suggestions that if adopted, would result in an effective and functional Oil Spill Response Plan that fulfills the expectations of responders, regulators, stakeholders, and the general public.

Emphasis for Future Offshore Oil Spill Response Planning

Existing oil spill response plans for the offshore oil and gas exploration, production, and transportation (pipeline) industry are regulated in the U.S. by Bureau of Safety and Environmental Enforcement (BSEE) regulations under 30 CFR Part 254, as well as additional guidance issued by that agency. Although the plans prepared under these regulations have been effective, the Guideline seeks to capture improvements based on lessons learned from recent events and best practices identified by Workgroup members. The Guideline seeks to improve on existing offshore oil spill response plans by offering emphasis in the following areas.

1. **Health and Safety of the public and response personnel.** Oil spills present potential inherent hazards to workers at the spill site, oil spill responders, and the general public. The Guideline seeks to minimize health and safety risks related to common oil spill hazards by recommending guidance for initial incident assessment, and development of an Appendix containing detailed guidance on oil spill response Health and Safety. This Appendix includes topics such as hazard assessment procedures, safety guidelines (including U.S. based HAZWOPER requirements), air monitoring, and recommended content of a spill-specific Health and Site Safety Plan.
2. **Expanded notification procedures.** Beyond the regulatory and practical requirements for internal and external notifications, there are key stakeholders that should be aware of oil spills in the marine environment. The Guideline recommends providing contact information for notification of all appropriate internal company personnel, response resources, law enforcement, Federal, State and local officials, wildlife managers, resource stakeholders, and notification of offset (nearby) facilities.

3. **“Actionable” plan content.** The Guideline seeks to design an oil spill plan that is based more on specific actions, and less on general methodology. Existing oil spill plans generally have extensive content on the methods and strategies of oil spill response, but lack detail on how to actually perform and achieve those strategies. Flowcharts, checklists and site specific action content should improve upon those general discussion sections. General methodology and strategy is referenced, where possible, in such documents as Area Contingency Plans and other oil spill guidance documents.
4. **Interoperability of emergency response, oil spill response, and source control.** Oil spill response must often be conducted in coordination with search and rescue, fire suppression, salvage and source control operations. The Guideline contains recommendations on how the oil spill response plan is related to other emergency response plans, and any company source control plan(s).
5. **Risk assessment and scenario planning for all potential types and sizes of spills.** The current BSEE Oil Spill Response Plan content emphasizes an operator’s response to a worst-case discharge of crude oil or condensate. However, smaller operational discharges of fuel and other oils may occur more frequently, and should be addressed in the plan. The Guideline recommends facility-based risk assessment to identify all sources of spills, including worst-case discharge(s). Comprehensive risk analysis and scenario planning should provide operators better insight into planning for all types and sizes of spills.
6. **Tier-level oil spill response planning.** Many U.S. and International guidelines and regulations for oil spill planning recommend a tiered approach to preparedness, but vary in how the tiers are defined. The tier approach provides organizations flexibility in developing response strategies and Spill Management Team structure, instead of a “one-size-fits-all” approach. The Guideline recommends a 3-tier response planning structure as follows:
 - **Tier 1** – Minor spills, including incipient spills that are quickly controlled, contained and cleaned up using local (onsite or immediately available) company/contractor owned equipment and personnel resources. For offshore facilities, local resources could include those at the facility, on nearby support vessels or at a designated shore support base or staging area. A Tier 1 spill would typically be resolved within a few hours or days.
 - **Tier 2** – Moderate spills, controlled or uncontrolled, requiring activation of significant regional (e.g., Gulf of Mexico) oil spill response resources and all or most of the Spill Management Team. A Tier 2 spill response may continue for several days or weeks.
 - **Tier 3** – Major spills, controlled or uncontrolled, requiring activation of large quantities and multiple types of response resources including those from out of the region, and possibly international sources. The entire Spill Management Team would be required, and would likely be supplemented by outside organizations. A Tier 3 spill response may continue for many weeks or months.
7. **Source control.** “Source control” refers to efforts to stop the source of the discharge, which can include uncontrolled well flow, pipeline leaks, tank or piping leaks, and other spill sources. The technical aspects of source control, particularly for well control, have typically been covered by a separate plan and involved activity that would be performed by specialists using equipment and procedures beyond the Oil Spill Response Plan. The Work Group concluded that the technical specifics of well control should remain beyond the scope of an Oil Spill Response Plan. Operators may address facility source control procedures in the Oil Spill Response Plan, or utilize separate facility source control planning documents, referenced by and consistent with the Oil Spill Response Plan. At minimum, the Oil Spill Response Plan should clearly describe overall aspects of the company’s source control procedures and resources, as they are a critical and integral part of the overall response that must be closely coordinated.

8. **Initial response procedures.** The Guideline recommends greater attention to the initial response actions that should be taken in the first minutes or hours of the incident. This includes specific checklists for facility responders and response management team members. Initial response procedures would address spill assessment, safety, notifications, available resources, sensitive areas that could be impacted within 24 hours of a release, and other key information needed to begin an effective response.
9. **Oil mass balance analysis.** It is critical for oil spill planners and responders to understand the amount of oil involved in the spill, and how that volume will change as the spill undergoes weathering (evaporation, dissolution, natural dispersion) in the marine environment. It is equally important to track the amount of oil recovered or otherwise removed from the environment. The Guideline recommends planners assess oil characteristics and provide tools for estimating the overall oil budget. The oil budget estimation is used during plan development to determine the quantities and capacities of spill response resources that should be available in the event of a spill, and is used for daily planning purposes during an actual response.
10. **Unified Command and integrated response.** Unified Command is a necessary and effective response management philosophy that has served industry and the public well in oil spill response. Close cooperation between industry and Government in contingency planning will ensure the maximum degree of coordination and understanding when a spill occurs. The Guideline recommends that spill management teams train and exercise in a Unified Command environment as much as possible to build and maintain an effective joint response management relationship.
11. **Response Management Systems and the Common Operating Picture.** Efficient use of resources is the key to response management, and having a clear picture of the location of resources and their status is essential for offshore oil spill response. The Guideline recommends that Spill Management Teams utilize a method of presenting a Common Operating Picture, using available technologies to the extent possible. This Common Operating Picture should be coordinated with the overall response management system and response documentation forms.

About the Layout

Organization

The content, format and organization of the plan is generally optional for the plan holder, as long as it complies with the applicable regulations and contains a Table of Contents and Cross-Reference to the appropriate regulatory citations. The Work Group strived to draft a plan content and layout structure that provides a useful, effective and functional plan, irrespective of recommended outlines in the regulations.

To maximize effectiveness and functionality, the plan needs to be organized such that critical response information can be quickly accessed and easily understood. Recommended plan organization includes:

- An optional Quick Guide containing guidelines and key information needed to manage the first few hours of a response. It should be a small, separately bound document that is easy to carry and readily available to on-site responders and/or spill management team members.
- Guidance and information on initial response actions located near the front of the plan, and key information at or near the front of each section to facilitate quick access.
- Similar information contained in the same section whenever possible to avoid searching through multiple sections to locate additional information.
- Information presented in tabular, checklist, bulleted or graphical formats to minimize the need to read through several pages of text.
- Supplemental information referenced in Appendices and other documents where appropriate.
- Templates for response documentation and response-related support plans.

Content

The content of the plan is designed to be adequate for all tiers of spill response, from a response lasting a few hours or days and requiring a limited amount of resources, up to the company's worst-case discharge. Since sustained response activity will normally be directed by the Unified Command, the plan focuses on the initial response phase where more guidance is typically required.

The plan is designed to be, to the extent practical, a stand-alone document for at least the first 24 hours of a response, with minimal need for access to other response documents. In a sustained response, other external documents, such as Area Contingency Plans, can be referenced where appropriate for additional information.

Information on recommended plan content and organization is provided in the Guideline document.

Background

The offshore oil and gas industry has always planned and prepared for oil spill response under the regulatory and policy guidance of the Minerals Management Service (MMS, now Bureau of Safety and Environmental Enforcement, or BSEE). Oil spill response planning requirements, spill response equipment availability and spill planning volumes are prescribed by BSEE for offshore exploration and production facilities.

For the U.S. Gulf of Mexico oil and gas industry prior to the Oil Pollution Act of 1990, MMS rules for oil spill planning were contained in 30 CFR Part 250. In 1992, MMS implemented the requirements of OPA 90 for more stringent oil spill planning and published an advance notice of proposed rulemaking (57 FR 36032-36034). This rule was made final in March 1997 (RIN 1010-AB81) and still exists as the current offshore oil planning regulations now found in 30 CFR Part 254. In 2012, BSEE issued NTL 2012-N06, which is the current policy guidance on U.S. offshore oil spill response plans for oil and gas exploration, production and pipeline operations seaward of the coastline.

As the various agencies drafted the OPA 90 oil spill planning regulations, there was considerable debate regarding the content and layout of an oil spill plan. Different requirements evolved under the various agencies for each type of plan holder. An effort was made by the **National Response Team** to develop a standard for oil spill and emergency response plans that could consolidate a facility's planning requirements under multiple agencies into one document, called the **Integrated Contingency Plan**. The Supplementary Information section of the March 1997 MMS Final Rule discusses the proposed elements of oil spill plans and how MMS was involved in the National Response Team's effort to formulate Integrated Contingency Plan guidance.

While effective for the most part for responding to many small, medium and major spills over the past decade, oil spill planning and preparedness for offshore operators has not advanced with changing oil exploration patterns, changes in response expectations, or with changes in communications systems and technology. Certainly, oil spill planning and preparedness had not expanded to take into consideration the type of high volume, continuous spill that occurred in 2010.

Sources of Reference

Many sources of suggested content and layout of oil spill contingency plans exist, and include government sources, scientific organizations, industry organizations, and the private sector.

Oil spill response planning and preparedness is not limited to the offshore oil and gas industry. All industries and organizations associated with the transportation and storage of oil are required to plan and prepare for oil spills to some degree. Since the 1960's, various U.S. and International laws, regulations and treaties have evolved to address oil spill planning and preparedness. There is now a wide variety of oil spill planning guidance available for review and consideration, both International and domestic, regulatory and non-regulatory. Lessons learned from recent spills are also available to help guide future oil spill planning.

Some of the major sources referenced for development of this Guideline include the organizations below.

- American Petroleum Institute, Oil Spill Preparedness and Response Subcommittee
- U.S. National Response Team
- U.S. National Oceanic and Atmospheric Administration Office of Response and Restoration
- International Maritime Organization (IMO)
- International Tanker Owners Pollution Federation (ITOPF)
- International Petroleum Industry Environmental Conservation Association (IPIECA) – Oil Spill Working Group (OSWG)
- Centre of Documentation, Research and Experimentation on Accidental Water Pollution (Cedre)
- The Bonn Agreement (North Sea)

Comparison of Oil Spill Plan Content and Layout; ICP, BSEE, API Guideline

National Response Team Integrated Contingency Plan (ICP) Content and Layout	BSEE Regional Oil Spill Response Plan Content and Layout (Current, per NTL 2012-N06)	API Guidelines for Offshore Oil Spill Response Plans
Section I – Plan Introduction Elements	1. Quick Guide (optional)	Quick Guide (standalone document)
1. Purpose and scope of plan coverage	2. Preface	1. Policy, Responsibility, and Planning Systems
2. Table of contents	3. Introduction	2. Initial Oil Spill Response Actions
3. Current revision date	4. Organization	3. Notification and Alert Procedures
4. General facility identification information	5. Operations Center/Communications	4. Response Resources
Section II – Core Plan Elements	6. Spill Detection/Control	5. Response Organization
1. Discovery	7. Notifications, Spill Team	6. On-Water Response
2. Initial response	8. Notifications, External	7. Shoreline Response
3. Sustained actions	9. Technical Expertise	8. Wildlife Protection and Rehabilitation
4. Termination and follow-up actions	10. Strategic Response Planning	9. Waste Management and Disposal
Section III – Annexes	11. Spill Assessment	10. Decontamination and Demobilization
1. Facility/locality information	12. Resource Identification/Protection	Appendix A – Health and Safety Guidelines
2. Notification	13. Resource Protection Methods	Appendix B – Facility Descriptions
3. Response management	14. Mobilization and Deployment Methods	Appendix C – Communications
4. Incident documentation	15. Oil/Debris Removal Procedures	Appendix D – Documentation
5. Training and exercise/drills	16. Disposal Procedures	Appendix E – Public Information and External Relations
6. Response critique and plan review and modification process	17. Wildlife Rehabilitation	Appendix F – Risk Assessment and Scenario Planning
7. Prevention	18. Dispersants	Appendix G – Training, Drills and Exercises
	19. In-situ Burning	Appendix H – Prevention and Detection
	20. Other Strategies (optional)	
	21. Documentation	
	22. Prevention (State Waters)	
	Appendix A – Facility Information	
	Appendix B – Training	
	Appendix C – Drills	
	Appendix D – Contractual Arrangements	
	Appendix E – Response Equipment	
	Appendix F – Support	
	Appendix G – ICS Compliant Notifications	
	Appendix H – Worst-case Discharge	
	Appendix I – Subsea Containment	
	Appendix J – Ocean/Meteorological Data	
	Appendix K – Bibliography	

Oil Spill Response Plan Content and Layout Cross-Reference

BSEE Regional Oil Spill Response Plan (Current, per NTL 2012-N06)	API Guidelines for Offshore Oil Spill Response Plans
1. Quick Guide	Quick Guide (Separate Document)
2. Preface <ul style="list-style-type: none"> a. Table of Contents b. Record of Revisions c. Cross-Reference Table 	Table of Contents <ul style="list-style-type: none"> 1.6 Plan Distribution, Review and Update 1.8 Regulatory Cross-Reference Table
3. Introduction <ul style="list-style-type: none"> a. Companies Covered b. Purpose and Use c. Types of Facilities d. Facility Information Statement e. Coverage Area f. Area Contingency Plans g. Contract Certification Statement 	<ul style="list-style-type: none"> 1.1 Purpose and Objectives 1.2 Scope/Area of Responsibility 1.5 Relationship to Other Plans 1.3.2 Contracted or Available Response Resources
4. Organization <ul style="list-style-type: none"> a. Qualified Individual b. Spill Management Team c. Spill Response Operating Team d. Oil Spill Removal Organizations e. Support Services 	5. Response Organization
5. Spill Response Operations Center and Communications <ul style="list-style-type: none"> a. Spill Response Operations Center b. Communications 	2.6 Response Facilities Appendix C – Communications
6. Spill Detection and Source Identification and Control <ul style="list-style-type: none"> a. Spill Detection b. Pipeline Spill Detection and Location c. Source Control 	2.4 Source Control 4.3 Source Control Resources Appendix H – Prevention and Detection
7. QI, SMT, SROT, and OSRO Notifications <ul style="list-style-type: none"> a. Reporting Procedures b. Company Contact Information c. SROT Contact Information d. OSRO Contact Information e. Subsea Containment Organization Information f. Internal Spill Reporting Documents 	<ul style="list-style-type: none"> 3. Notification and Alert Procedures 4.1 Resource Contact Information
8. External Notifications <ul style="list-style-type: none"> a. Reporting Procedures b. External Contact Information c. External Spill Reporting Documents 	3. Notification and Alert Procedures

BSEE Regional Oil Spill Response Plan (Current, per NTL 2012-N06)	API Guidelines for Offshore Oil Spill Response Plans
9. Available Technical Expertise	4.1 Resource Contact Information 4.9 Specialty Expertise
10. Strategic Response Planning	1.5 Relationship to Other Plans 2.1 Initial Response Actions 2.3 General Response Actions, Priorities and Objectives 2.7 Response Information Management
11. Spill Assessment <ul style="list-style-type: none"> a. Locating a Spill b. Determining the Size and Volume of a Spill c. Predicting Spill Movement d. Monitoring and Tracking Spill Movement 	2.5 Spill Assessment 2.8 Oil Characteristics and Mass Balance Information
12. Resource Identification and Prioritization for Protection	6.1 Offshore Sensitive Areas 7.1 Shoreline/Sensitive Area Protection
13. Resource Protection Methods	6. On-Water Response 7. Shoreline Response
14. Mobilization and Deployment Methods	4.2 Resource Inventories and Mobilization Times 4.5 Equipment Maintenance and Readiness 6. On-Water Response 7. Shoreline Response
15. Oil and Debris Removal Procedures <ul style="list-style-type: none"> a. Offshore Procedures b. Shallow Water and Shoreline Procedures c. Response Efficiency 	6. On-Water Response 7. Shoreline Response
16. Oil and Oiled Debris Disposal Procedures	9. Waste Management and Disposal
17. Wildlife Rescue and Rehabilitation Procedures	8. Wildlife Protection and Rehabilitation
18. Dispersant Use Plan <ul style="list-style-type: none"> a. Dispersants Inventory b. Toxicity Data c. Application Equipment d. Application Methods e. Conditions for Use f. Approval Procedures and Documents 	6.3 Dispersants

BSEE Regional Oil Spill Response Plan (Current, per NTL 2012-N06)	API Guidelines for Offshore Oil Spill Response Plans
19. In-situ Burning Plan <ul style="list-style-type: none"> a. In-Situ Burning Equipment b. Procedures c. Environmental Effects d. Safety Provisions e. Conditions for Use f. Decision Processes g. Approval Procedures and Documents 	6.4 In-Situ Burning
20. Other Strategies <ul style="list-style-type: none"> a. Product Inventory b. Toxicity Data c. Application Equipment d. Application Methods e. Conditions for Use f. Approval Procedures and Documents Forms 	6.5 Alternative Technologies
21. Documentation	1.1.4 Response Management System Appendix D – Documentation
22. Prevention Measures for Facilities in State Waters	Appendix H – Prevention and Detection
Appendix A – Facility Information	Appendix B – Facility Descriptions
Appendix B – Training Information	Appendix G – Training, Drills and Exercises
Appendix C – Drill Information	Appendix G – Training, Drills and Exercises
Appendix D – Contractual Arrangements	1.3.2 Contracted or Available Response Resources
Appendix E – Response Equipment	4.2 Resource Inventories and Mobilization Times
Appendix F – Support Services and Supplies	4. Response Resources
Appendix G – ICS Compliant Notification and Reporting	3. Notification and Alert Procedures Appendix D – Documentation
Appendix H – Worst-case Discharge Scenarios	Appendix F – Risk Assessment and Scenario Planning
Appendix I – Subsea Containment Information	2.4.3 Well Source Control
Appendix J – Oceanographic and Meteorological Information	2.5.5 Oceanographic and Meteorological Information

Purpose of the Quick Guide

A Quick Guide to the Oil Spill Response Plan (OSRP) will contain guidance and key information needed to manage the incipient phase of the response. It should be a small, separately bound document that is easy to carry and readily available to spill management team members.

The Quick Guide should provide clear and concise instructions on immediate safety precautions and initial oil spill response actions.

For smaller spills, the Quick Guide should have sufficient information to execute an entire oil spill response, with minimal references to other sections of the plan or other documents.

For larger spills, the Quick Guide should provide the tools necessary for facility personnel, the Qualified Individual, individual Spill Management Team members, and Oil Spill Removal Organizations to implement initial response actions while the full Spill Management Team and Unified Command are being activated.

In the case of companies with multiple facilities, a Quick Guide could be developed for each facility, or a group of similar facilities in the same region.

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Guidelines for Offshore Oil Spill Response Plans—Quick Guide

1 Initial Response Actions

Provide clear and concise instructions on immediate safety precautions and initial oil spill response actions that should be taken within the first minutes and hours of an incident.

1.1 Response Priorities and Objectives

Describe the company's priorities of emergency and oil spill response (Safety, Environment, Source Control, and Property) and how all response decisions are made in accordance with those priorities.

Provide a list of possible initial oil spill response objectives and their corresponding strategies, based on general patterns of response.

Include a flowchart of the general pattern of oil spill response from detection through demobilization.

1.2 Person-in-Charge Initial Response Checklist

Describe all immediate oil spill response actions to be taken by the Person-in-Charge (PIC) of the facility, such as:

- Alert facility personnel/Sound alarms
- Secure sources of ignition
- Account for all personnel
- Activate facility Emergency or Spill Response Team
- Activate firefighting systems or resources if needed
- Initiate source control actions [activate emergency shutdown (ESD), close blowout preventer (BOP), turn valves, shut down pumps, shut down power]
- Determine number and severity of injuries and request onsite medical assistance
- Secure the spill area (exclusion zone)
- Identify product and estimate quantity or rate of oil released
- Conduct site safety characterization (hazard assessment), including air monitoring
- Identify actual or potential health and safety hazards and evacuate or shelter in place as appropriate
- Notify Qualified Individual and other required entities
- Conduct preliminary incident severity/potential assessment
- Implement other asset-specific response actions

1.3 Qualified Individual Initial Response Checklist

Provide a quick checklist for the Qualified Individual (QI).

This checklist may be divided into the following sections:

- a) All oil spills
- b) Tier One Spills
- c) Tier Two Spills
- d) Tier Three Spills

The checklist would include initial response actions that the Qualified Individual is responsible for, such as notifications, mobilization of Oil Spill Removal Organizations (OSRO), interfacing with government officials, and activating the Spill Management Team (SMT).

1.4 Initial Notifications

Provide a brief narrative of the notification process and responsibilities, followed by a notification decision diagram summarizing the type and sequence of notifications. If possible, incorporate the regulatory reporting requirements or provide a separate decision diagram. Include a single table containing names and contact information for all the above parties.

Include internal and external notification requirements and procedures such as:

- Facility personnel and management
- Qualified Individual
- Onshore support base
- Onshore company management
- Spill Management Team
- Regulatory Agencies
- Primary Oil Spill Removal Organizations
- Subsea Containment Companies (e.g. Marine Well Containment Company and/or Helix Well Control Group)

1.4.1 Regulatory Reporting Requirements

Describe internal and external requirements for both verbal and written regulatory reports. If not already included, provide a decision diagram containing the sequence and requirements for various scenarios, as appropriate, depending on:

- Spilled/Released Material (oil, refined products, gases, etc.)
- Impacted Media (water, air, land)
- Spatial Extent (onsite, offsite, local community, etc.)

1.4.2 Notification Forms

Briefly describe internal and external notification forms that should be used to capture information required for verbal and written notifications. Include blank notification forms; or forms with pre-filled static information; and/or directions to access electronic report forms.

1.4.3 Contact Directory

Include a single table containing names and contact information for all the above parties.

1.5 Initial Site Hazard Assessment

Provide guidance for facility personnel on oil spill hazards, immediate personnel protection strategies, references to Material Safety Data Sheets (MSDS) and other health and safety information. This section should be specific to the products handled at the facility. Include brief guidance on the initial site characterization and personnel safety protection actions to be taken. Include discussion of oil spill hazards and mitigation techniques to address issues such as:

- Site Control
- Weather/temperature conditions
- Slips due to oil covered surfaces
- Inhalation Hazards
- Flammability
- Skin exposure
- Mechanical injuries
- Exposure to plants, wildlife and insects (if near shore)
- Working over water

This section should also contain specific air monitoring guidelines required before any personnel enter the contaminated area (exclusion zone).

The initial site hazard assessment would be the first step in development of an incident-specific Site Safety Plan.

1.6 Initial Spill Assessment

Describe actions and information required to assess the spill size and classification. The spill assessment will guide the Qualified Individual and Spill Management Team on resource requirements and level of response necessary.

1.6.1 Assessment Activities

Provide spill assessment instructions for those who may be the first to observe the spill, such as facility personnel, nearby vessels, or nearby aircraft. Include such topics as:

- Spill volume estimation (direct volume measurements, and color-metric technique)

- Spill movement (vector trajectory)
- Spill tracking and monitoring
- Spill observation terminology (quick table of definitions)
- Photography and video guidance

1.7 Quick Resource List

Include lists of any company-owned equipment available to facility personnel. Provide a quick reference list to the most common or frequently used third-party oil spill response resources, including any Spill Management Team (SMT) and primary Oil Spill Removal Organizations (OSROs).

This information should be provided in a table format. For each resource, include; purpose, location, mobilization information, and 24/7 contact information.

Resource	Resource Type	Owner	Contact Information

1.8 Sensitive Areas in the Immediate Vicinity

Include maps of environmental or economic sensitive areas that could be impacted within a short timeframe. Describe immediate protection strategies for those areas, response resources required and their mobilization timeframes. Stakeholders associated with these sensitive areas should be listed, along with their contact information.

Companies with multiple facilities in the same geographic region may list the sensitive areas for the group of facilities, instead of individually.

1.9 Key Facility Information

Include a summary of key information that would be useful in the initial stages of a response.

Include such information as:

- Facility Identification number and/or designated name
- Type of Facility
- Facility contact information
- Facility manning and management structure
- Area/Block
- Location (Lat/Long)
- Distance to Shore
- Water depth

- Type and characteristics of products handled
- Oil storage capacity
- Pipeline throughput
- Pipeline (inbound/outbound) operator contact information
- Offset (nearby) operators and facilities
- Helicopter landing/refueling capacity

Also include facility plot plan/diagram(s), if practical. For companies with multiple facilities, it is acceptable to reference location where plot plans are stored. Alternatively, companies with multiple facilities may provide a representative plot plan for similar facilities in lieu of drawings for each facility.

1.10 Company Response Facilities

Include a list of the company's pre-designated onshore Command Posts, Staging Areas, Forward Command Posts, Incident/Crisis Centers and other response facilities.

Include a list or table that lists each facility, its purpose, address, and contact information. If necessary, include any activation procedures required for these facilities.

1.11 Initial Response Checklists

Provide general action-oriented checklists for each Command Staff and Section Chief position on the Spill Management Team. These checklists should not be comprehensive for the entire response, but should describe specific steps that each team member might take in the first few hours of the response while the Unified Command is being established and working on objectives/priorities. The checklists should describe important safety issues, initial operational activities, planning activities, notifications, logistical arrangements, financial procedures, and external affairs activities.

1.12 Documentation and Forms

Provide a set of forms that will be used in the first Operational Period including, but not limited to:

- Incident Report Form
- Notification Status Summary
- ICS 201-1 Incident Map
- ICS 201-2 Objectives and Current Actions
- ICS 201-3 Response Organization
- ICS 201-4 Resources Summary
- Weather Report
- Initial Site Characterization Form
- ICS 208 Site Safety Plan
- Action/Conversation Records

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Guidelines for Offshore Oil Spill Response Plans

1 Policy, Responsibility and Planning Systems

Section Purpose: Explain the scope and purpose of the Oil Spill Response Plan to provide users clarification on its intended use. Use this Section to reinforce the company's commitment for effective oil spill response and protection of health, safety and the environment.

This section provides summaries, where applicable, of company policies regarding health and safety, response priorities, financial responsibility and other response program-related information. It should also describe relationships to other related plans, the operations and geographical area covered by this plan, and regulatory requirements the plan is intended to satisfy.

1.1 Purpose and Objectives

1.1.1 Statement of Primary Purpose

Describe that the Oil Spill Response Plan will provide information, notification procedures, guidance and pre-defined guidelines for initial actions in the event of a discharge of oil into the environment.

1.1.2 Onshore Spill Response Support

Explain how offshore facility personnel will be supported by appointed onshore personnel, such as a Spill Management Team, as needed.

1.1.3 Multi-Tier Oil Spill Response Philosophy

Describe the company's multi-tier oil spill response system, or its equivalent. This description should include a definition of each tier level, a high-level overview of the anticipated organization/size of the Spill Management Team at each tier level, and a high-level overview of the anticipated response resources required for each tier level.

A multi-tier oil spill response approach is recommended for offshore oil spill response planning. The tier system allows maximum flexibility in developing response strategies and Spill Management Team structure, instead of a "one-size-fits-all" approach.

In some cases, tiered systems can be volume-based, such as the U.S. National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300). In most oil spill plans, however, the tier definitions are largely dependent on the requirements of the regulatory oversight agency and are based on scenarios, including a worst-case discharge.

It is recommended that tiers be defined by each company to best fit their circumstances. A suggested 3-tier response planning structure is as follows:

- **Tier 1** – Minor spills, including incipient spills that are quickly controlled, contained and cleaned up using local (onsite or immediately available) company/contractor owned equipment and personnel resources. For offshore facilities, local resources could include those at the facility, on nearby support vessels or at a designated shore support base or staging area. A Tier 1 spill would typically be resolved within a few hours or days.
- **Tier 2** – Moderate spills, controlled or uncontrolled, requiring activation of significant regional (e.g., Gulf of Mexico) oil spill response resources and all or most of the Spill Management Team. A Tier 2 spill response may continue for several days or weeks.

- **Tier 3** – Major spills, controlled or uncontrolled, requiring activation of large quantities and multiple types of response resources including those from out of the region, and possibly international sources. The entire Spill Management Team would be required, and would likely be supplemented by outside organizations. A Tier 3 spill response may continue for many weeks or months.

1.1.4 Response Management System

Describe, in general terms, the response management system (i.e. Incident Command System) that will be used to implement this Oil Spill Response Plan and manage the response.

Reference any response management system guidance documents that may be useful to the Spill Management Team (e.g. ICS Handbooks).

1.2 Scope/Area of Responsibility

1.2.1 Applicability and Exclusions

Describe the general types of facilities and activities/operations covered by the Oil Spill Response Plan, as well as any exclusions or limitations of the plan applicability.

Refer to **Appendix B – Facility Descriptions** for detailed facility information.

1.2.2 Geographic Response Area

Identify the geographic response area covered by the Oil Spill Response Plan. Include a map of the geographic response area boundaries and facility locations (or groups of facility locations) covered by the plan. The geographic response area would include all waters and shorelines that could be threatened by a spill from the offshore facility/facilities within a reasonable amount of time. Consideration should be given to utilizing worst-case discharge trajectories from representative facility/facilities to bound the geographic response area.

1.3 Certification of Responsibility and Resources

1.3.1 Financial Responsibility

Describe how the company demonstrates financial responsibility for oil spill response for the applicable facility/facilities as required by applicable regulation. Consider including a list of applicable financial responsibility documents along with images of the documents, or a reference to their retention location, and/or identify the person responsible for maintaining them.

1.3.2 Contracted or Available Response Resources

Describe any contracts, mutual aid agreements or other binding arrangements to gain access to oil spill response equipment and other resources that are designated to respond to spills from the facility/facilities, or group(s) of facilities covered by this Oil Spill Response Plan.

Include (if necessary) signed certification that all necessary oil spill response resources are available by contract or other means, to the extent required by applicable laws.

1.4 Policy on Health, Safety and Environment

1.4.1 Corporate Health, Safety and Environmental Policy

Summarize how the company's Health Safety and Environmental policy applies to oil spill response in order to demonstrate the company's commitment to respond to oil spills in a safe and environmentally responsible manner.

1.4.2 Response Priorities

Generally describe the company's priorities of emergency and oil spill response (Safety, Environment, Source Control, Property, etc.) and how response decisions are made in accordance with those priorities. Explain how adherence to these priorities will help guide decision-making in oil spill response.

1.5 Relationship to Other Plans

Briefly describe the relationship of this Oil Spill Response Plan to other internal and external response plans that may be utilized or accessed during an oil spill response. Consider including a diagram showing the relationships of these plans.

1.5.1 Company Emergency Response Plans

Include a description of how the Oil Spill Response Plan relates to other company response plans that may be implemented concurrently, such as:

- Incident and/or Crisis Management Plan
- Offshore Facility Emergency Evacuation Plan
- Source Control Plan(s)
- Well Containment Plan
- Fire and Salvage Plan
- Hurricane Plan
- Business Continuity Plan
- Bridging Documents

1.5.2 National Contingency Plan

Briefly describe the overall response structure and procedures of the U.S. National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), and how it relates to other Federal and State plans. Include a brief discussion of a response to a Spill of National Significance and how it would impact the organization of the Spill Management Team.

1.5.3 National Response Framework

Briefly discuss the National Response Framework and National Incident Management System as they relate to oil spill response.

1.5.4 Area Contingency Plans

Describe how the Oil Spill Response Plan is consistent with applicable Area Contingency Plans. List all Area Contingency Plans applicable to the scope of this Oil Spill Response Plan, with links or references to their location. Use specific references to applicable content that is of particular relevance to this Oil Spill Response Plan.

1.5.5 State Government Plans

List and describe any applicable State oil spill response plans and how they may be used in a response.

1.5.6 Bridging Documents

If the Oil Spill Response Plan will cover operations that involve third-party drilling rigs or other vessels/facilities, briefly describe how bridging documents will be utilized to pre-define coordination of response activities, including notifications, between the third-party and the company.

1.6 Plan Distribution, Review and Update

1.6.1 Review Procedures

Describe plan review requirements (including verification of contact lists and phone numbers), persons responsible for this review, and review frequency. Consider developing requirements to review plan content following exercises or actual incidents to ensure deficiencies are corrected and lessons learned are captured.

1.6.2 Record of Amendments

Briefly describe procedures and include a form for documenting plan amendments or revisions. Also describe how plan updates are distributed to plan holders.

1.6.3 Plan Distribution

Describe how the Oil Spill Response Plan is controlled and distributed internally and externally. Include a table that indicates the locations and owners of controlled plan copies, if any.

1.6.4 Electronic Plan Access

If the plan will be available electronically, links and instructions for electronic access should be provided.

1.7 References

Include, as appropriate, a list of references to:

- Applicable regulations
- Area Contingency Plans
- State or local oil spill plans (if any)
- Oil spill tool kits/websites
- Oil spill guidance materials

- Response management guidelines (i.e. ICS Handbooks)
- Company response-related plans and procedures
- ASTM standards applicable to oil spill response

1.8 Regulatory Cross-Reference Table

Provide a table listing applicable regulatory Oil Spill Response Plan content requirements and identify where in this plan each of those requirements are addressed to ensure regulatory compliance and facilitate the regulatory review process.

2 Initial Oil Spill Response Actions

Section Purpose: Provide key initial response guidelines in one section near the front of the plan to facilitate quick access and present it in the general order that it is required in a response. This should guide the user through the first few hours or days of an incident.

Specifically, this section is intended to provide information and guidelines on initial oil spill response actions. These actions should be provided in the general sequence required during a response. Decision guides and checklists should be used whenever possible in lieu of text. The information in this section should be as stand-alone as possible and provide information that is typically required in the first 24 hours of a response, while recognizing that some references to supplemental response information in the appendixes or other documents may be necessary.

For minor (Tier 1) spills, the response is often completed within the first 24 hours, and no further guidance is necessary. For moderate to major (Tier 2 or 3) spills, a Unified Command will normally be formed to direct the response activities, utilizing the Oil Spill Response Plan for general guidance. Therefore, it is less critical for detailed guidelines to be provided for the later stages of a response. However, it is essential that information on ramping-up the response for a Tier 2 or 3 incident is contained in the plan.

2.1 Initial Response Actions

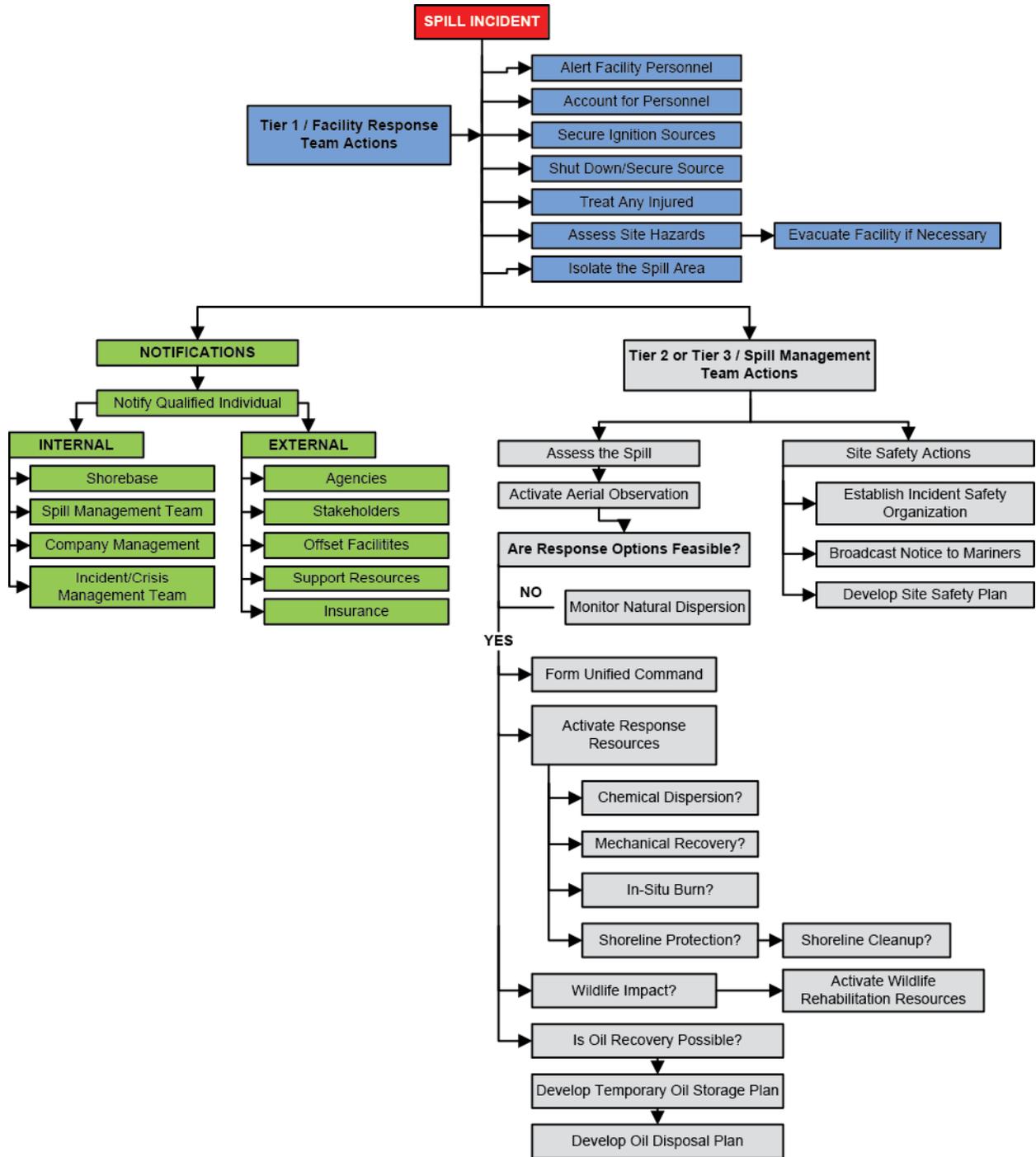
Provide guidelines for the actions to be taken immediately upon discovery of a release, including a quick situation size-up and identification of actual or potential health and safety hazards. Also include initial actions to be taken by the Qualified Individual if different than the other initial actions.

2.1.1 Action Sequence and Strategy

Consider including a flow/decision Response Strategy Guide depicting the initial actions in a prioritized sequence such as the example provided below. Also provide a checklist depicting prioritized initial actions that facility personnel could utilize to ensure key initial response actions are implemented or considered. An example checklist could include:

- Alert facility personnel/sound alarms
- Secure sources of ignition
- Initiate source control actions (activate emergency shutdown, close blowout preventer, turn valves, shut down pumps, shut down power)
- Account for all personnel

-
- Identify product and estimate quantity or rate of oil released
 - Conduct site safety characterization (hazard assessment), including air monitoring
 - Identify actual or potential health and safety hazards and evacuate or shelter in place as appropriate
 - Determine number and severity of injuries and request onsite medical assistance
 - Secure the spill area (exclusion zone)
 - Make required notifications to Qualified Individual and others
 - Activate facility Emergency or Spill Response Team
 - Activate firefighting systems or resources if needed
 - Conduct preliminary incident severity/potential assessment
 - Implement other asset-specific response actions



Example Initial Response Strategy Guide

2.1.2 Qualified Individual Initial Actions

Provide a checklist for the Qualified Individual, or company designated person responsible for initiating notifications and activating first responders if significantly different than the information provided above. In some cases the Qualified Individual may also be the Incident Commander so these actions would apply to both.

This checklist may be divided into the following sections:

- a) All oil spills
- b) Tier 1 Spills
- c) Tier 2 Spills
- d) Tier 3 Spills

The checklist would include initial response actions that the Qualified Individual/Incident Commander is responsible for, such as notifications, mobilization of Oil Spill Removal Organizations, interfacing with government officials, and activating the Spill Management Team. The checklist should follow the intent of the regulations as well as company policy and procedures.

An example checklist follows.

Qualified Individual
<p>The Qualified Individual serves as the point of contact for notification of spill events requiring response. The Qualified Individual receives the initial report of the incident from the facility, and then ensures that emergency resources are mobilized and agency notifications are completed as required. The Qualified Individual is authorized to commit funding for oil spill response and source control resources.</p>
<ul style="list-style-type: none"> <input type="checkbox"/> Upon notification of incident, obtain critical information, including: <ul style="list-style-type: none"> • Personnel status • Number and types of injuries • Evacuation status • Immediate assistance required • Environmental status (i.e. spill data) • Condition of facility (damage) • Status of operations • Actions taken by facility responders • Response resources available or en-route <input type="checkbox"/> Prepare a Spill/Incident Report Form for initial notification, if necessary. <input type="checkbox"/> Ensure all required agency notifications are completed. <input type="checkbox"/> Serve as initial point of contact with agency response personnel. <input type="checkbox"/> Notify the Incident Commander. Recommend level of response required based on initial reports. Consider how the situation could escalate and respond accordingly to the incident potential. <input type="checkbox"/> Engage with the Incident Commander to: <ul style="list-style-type: none"> <input type="checkbox"/> Authorize funding of response resources. <input type="checkbox"/> Inform the Incident Commander of site hazards and weather conditions. <input type="checkbox"/> Communicate the response priorities and objectives. <input type="checkbox"/> Discuss resources available or en-route. <input type="checkbox"/> Determine what additional resources may be mobilized. <input type="checkbox"/> Attend the initial incident briefing. <input type="checkbox"/> If requested, and if appropriate, serve as representative in the Unified Command. <input type="checkbox"/> Continue to coordinate response activities until relieved. <input type="checkbox"/> Advise the Incident Commander on response strategies and progress. <input type="checkbox"/> Attend all team briefings until demobilized.

Example Qualified Individual Checklist

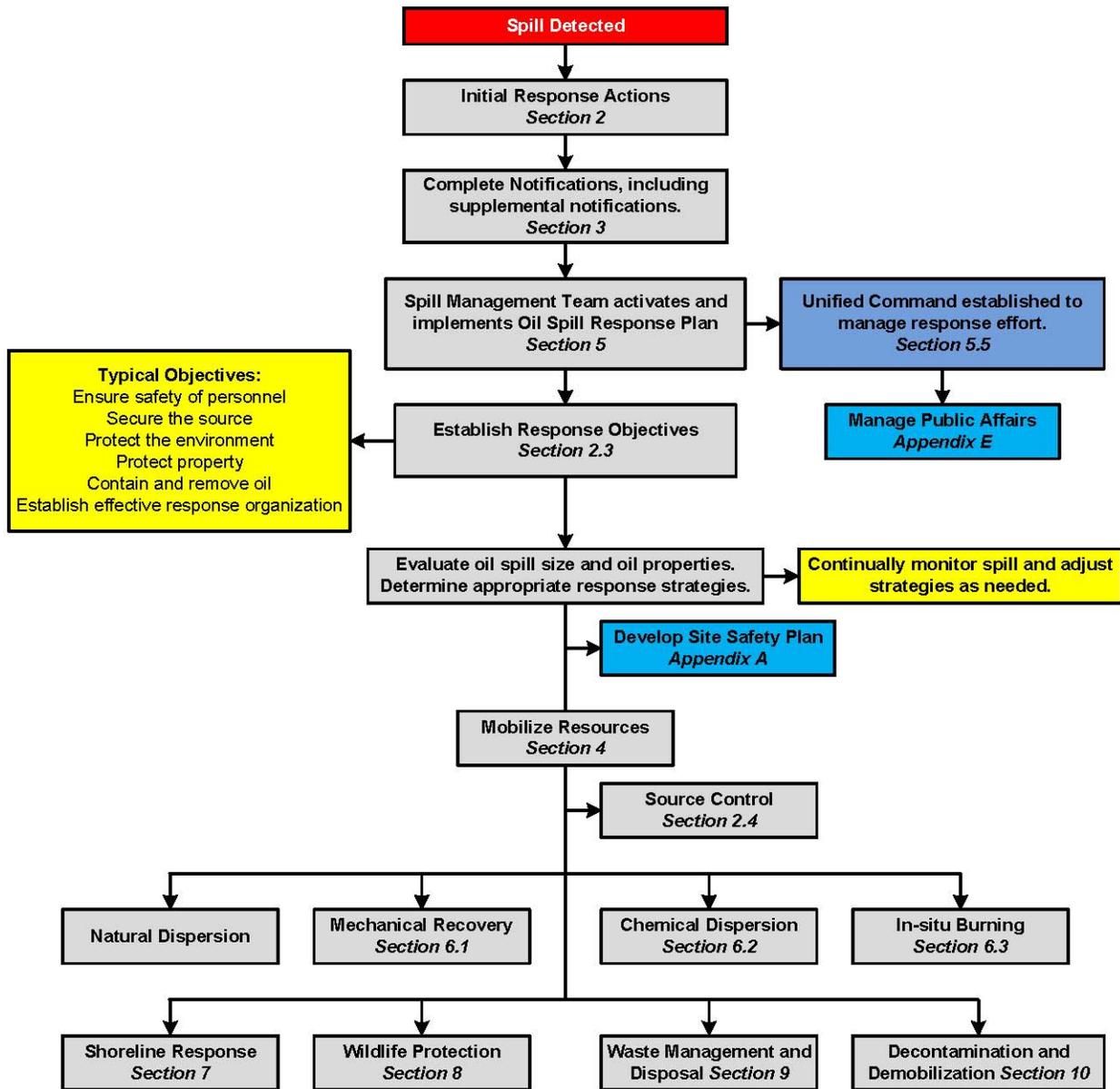
2.2 Health and Safety Assessment

Provide specific procedures for conducting air monitoring and other hazard assessment activities prior to any personnel entering the spill area (exclusion zone). Decision guides and checklists should be used where practical to describe the typical release/hazard assessment activities. Criteria and procedures for evacuations, shelter in place and other actions to protect the health and safety of onsite personnel should also be included. The initial site hazard assessment would be the first step in developing an incident-specific Site Safety Plan.

Include information on oil spill hazards (such as high H₂S and high benzene), immediate personnel protection strategies, references to Material Safety Data Sheets, etc. This section should be specific to the products handled at the facility, or groups of facilities. **Appendix A** can be referenced for additional health and safety information.

2.3 General Response Actions, Priorities and Objectives

Briefly discuss how all response decisions are made in accordance with the company policies and priorities described in Section 1.4. Also discuss, in general terms, the prioritized response actions that should be taken following the initial response and continuing through demobilization to provide guidance on the types and sequence of activities that will normally occur over the duration of a response. Consider including a flowchart and/or checklist depicting the general pattern of oil spill response activities such as the example flowchart provided below.



Example – General Pattern of Oil Spill Response

Consider providing a list of possible initial oil spill response objectives and their corresponding strategies, based on general patterns of a response. They should be consistent with common emergency response objectives and associated strategies that can be included on appropriate response documentation forms. An example list is provided below.

Example Incident Objectives and Strategies

Objective	Strategies
Ensure the safety of facility personnel, response personnel and the public.	<ul style="list-style-type: none"> • Account for all personnel on-scene. • Treat and transport injured personnel. • Identify hazards of any spilled material, including fire potential. • Establish site control (hot zone, warm zone, cold zone and security). • Consider evacuations as needed. • Establish vessel and/or aircraft restrictions. • Monitor air in affected areas. • Develop site safety and health plan for response personnel. • Ensure safety briefings are conducted.
Search and Rescue.	<ul style="list-style-type: none"> • Locate and evacuate all personnel. • Evacuate victims to medical transfer areas or facilities once rescued from immediate peril. • Establish medical triage along with transport to hospital. • Conduct joint agency Search and Rescue efforts. • Complete accountability for all personnel.
Control the source of the incident.	<ul style="list-style-type: none"> • Complete emergency shutdown. • Calculate total potential spill quantity. • Conduct firefighting and initiate temporary repairs. • Transfer and/or lighter product. • Conduct salvage operations as necessary.
Manage a coordinated response effort.	<ul style="list-style-type: none"> • Complete or confirm notifications. • Establish a Unified Command organization and facilities. • Ensure local officials are included in response organization. • Initiate spill response Incident Action Plans. • Ensure response resources mobilization and tracking. • Account for personnel and equipment. • Document conversations and actions. • Monitor operational activities.

Objective	Strategies
Maximize protection of environmentally-sensitive areas.	<ul style="list-style-type: none"> • Implement pre-planned response strategies. • Identify resources at risk in spill vicinity. • Track oil spill movement and develop spill trajectories. • Conduct visual assessments such as over-flights. • Develop/implement appropriate protection tactics.
Treat, or contain and recover spilled material.	<ul style="list-style-type: none"> • Prepare dispersant use plan if appropriate. • Conduct open-water skimming with vessels. • Evaluate in-situ burn option. • Deploy containment boom at appropriate collection areas. • Develop and implement waste management plan. • Conduct appropriate shoreline cleanup efforts. • Clean oiled structures such as piers and docks. • Clean oiled vessels.
Keep the public and stakeholders informed of response activities.	<ul style="list-style-type: none"> • Conduct regular news briefings. • Manage news media access to spill response activities. • Conduct public meetings as appropriate.
Recover and rehabilitate injured wildlife.	<ul style="list-style-type: none"> • Establish oiled wildlife reporting hotline. • Conduct injured wildlife search and rescue operations. • Setup primary care unit for injured wildlife.
Minimize economic impacts.	<ul style="list-style-type: none"> • Consider tourism, vessel movements and local economic impacts throughout response. • Protect public and private assets, as resources permit. • Establish damage claims process.

2.4 Source Control

Describe applicable methods, strategies and resources to control the source of operational spills and the initial actions to a loss of well control incident. Reference a separate Source Control Plan and other related documents, if applicable, for additional information on responding to well control incidents. Include an overview of how source control operations will be managed and coordinated with the spill response and consider including a robust Source Control Branch within the Spill Management Team organization. Guidance on coordinating numerous simultaneous operations activities should also be included.

2.4.1 Production Facility Source Control

Include general source control strategies and resources for leaking pipes, storage vessels/tanks, process equipment, hydraulic equipment and fuel/lube tanks on production facilities. Consider including a table listing potential sources, actions to be taken and resources to be used to control each source or include existing containment plans.

2.4.2 Pipeline/Flowline Source Control

Include general source control strategies and resources for pipelines and flowlines. This includes subsea flowlines, lease pipelines and Right-of-Way (ROW) pipelines. Use references if available, or include specific information in this section and consider including a table as mentioned above in 2.4.1.

2.4.3 Well Source Control

Include general source control strategies and resources for all types of wells covered by the Oil Spill Response Plan, including dry-tree wells and subsea wells. Use references if available, or include specific information in this section.

For dry-tree wells, describe (or reference) facility well control procedures, well control contractors and other required resources.

For subsea wells, provide an overview of any relevant emergency well containment cooperative, program, contractors, or management organization. Reference any separate Well Containment Plan (if applicable) or include more well containment detail in the Oil Spill Response Plan. Such detail could include:

- Well capping and containment plans, procedures and processes
- Other well control strategies, such as relief well
- Organizational elements of Source Control Branch or Section and how it interacts with the Spill Management Team.

2.5 Spill Assessment

Describe actions and information required to assess and classify the spill size and to monitor its movements. The results of the spill assessment and surveillance activities will guide the Qualified Individual/Incident Commander and Spill Management Team on resource requirements and level of response necessary. Spill assessment and monitoring will inform the Spill Management Team of the current location and projected path of the spill and assist in the identification of potentially impacted sensitive areas or shorelines.

2.5.1 Initial Assessment Activities

Provide spill assessment instructions for those who may be the first to observe the spill, such as facility personnel, nearby vessels, or nearby aircraft. Include such topics as:

- Spill type identification (surface, sub-surface, crude, refined products, continuing, contained, etc.)
- Spill volume estimation (direct volume measurements and color-metric technique). Consider inserting color-metric graphs, pictures, instructions or other tools from recognized organizations such as the Bonn Agreement.

Sample Initial Spill Volume Estimation Chart

(Reference – Bonn Agreement Aerial Operations Handbook)

Code	Description	Layer-Thickness Interval		Concentration	
		microns (μm)	inches (in.)	m^3 per Km^2	bbl/acre
S	Sheen (silver/gray)	0.04 – 0.30	1.6×10^{-6} to 1.2×10^{-5}	0.04 – 0.30	1×10^{-3} to 7.8×10^{-3}
R	Rainbow	0.30 – 5.0	1.2×10^{-5} to 2.0×10^{-4}	0.30 – 5.0	7.8×10^{-3} to 1.28×10^{-1}
M	Metallic	5.0 – 50	2.0×10^{-4} to 2.0×10^{-3}	5.0 – 50	1.28×10^{-1} to 1.28
T	Transitional Dark (or True) Color	50 – 200	2.0×10^{-3} to 8×10^{-3}	50 – 200	1.28 – 5.1
D	Dark (or True) Color	> 200	$> 8 \times 10^{-3}$	> 200	> 5.1

2.5.2 Spill Trajectories/Modeling

Pre-spill Trajectory Modeling – Consider conducting pre-spill trajectory modeling for selected facility/facilities or groups of facilities that could threaten shoreline or offshore sensitive areas within a reasonable amount of time. Facility selection for pre-spill trajectory modeling should be based on:

- Proximity to shore or offshore sensitive areas
- Sensitivity of potentially impacted areas
- Potential spill volume
- Oil properties (persistence)
- Prevailing wind and current directions and speeds
- Containment and recovery resource deployment time frames

If the above factors suggest the facility/facilities pose minimal risk to impacting shoreline/sensitive areas, then trajectories may not be warranted. Additionally, for companies with multiple facilities, representative trajectory models can be run for groups of facilities in the same general area, taking into consideration similarities in oil types and volumes and their relative geographic locations.

The resulting trajectory information showing the projected path and speed of the spill should be included in this section. The results would provide information on:

- Directions and speeds of spill movements under common wind and current conditions (seasonal averages)
- Potentially impacted sensitive areas and/or nearby facilities and estimated time to oil contact

This information would inform planning activities such as:

- Development of protection strategies/tactics for sensitive areas and shorelines most at risk

- Identification of associated resources available to implement protection measures prior to oil impact
- Identification of applicable containment/recovery techniques including dispersants and in-situ burning
- Identification of the most practical means of notifying at risk nearby facilities that a spill may be migrating in their direction

Trajectory Modeling for Actual Spills – Provide guidance for initial responders on estimating spill trajectories using vector addition, including instructions and graphics. List all modeling tools available to the company (ADIOS 2, Oil Map, Vector Addition, OSCAR, OSIS, etc.) and who will utilize those tools. Reference Section 2.5.5 for metocean data that can be used as model inputs.

Identify internal or external resources (consultants, government, academia, etc.) that can conduct computerized trajectory modeling. Include data forms for submitting trajectory modeling requests as appropriate and reference contact information in Section 3.0 or 4.0 as applicable.

2.5.3 Limited Visibility Spill Location/Tracking

Describe procedures, equipment, technologies, contractors, etc. that will be utilized to locate and track movements of oil slicks in darkness or other limited visibility conditions. Examples of equipment and technologies include X-Band radar to locate slicks and infra-red cameras to identify heaviest oil concentrations which, when combined, can be used to direct mechanical recovery and potential dispersant operations. Other available remote sensing technologies and equipment should also be described. Names and contact information for outside sources of these technologies should be referenced in **Section 4.0 Response Resources**.

2.5.4 Aerial Surveillance

Provide guidelines on aerial surveillance and how it can be used to track spill movements and coordinate containment, recovery, dispersant, in-situ burning and other response operations. Consider including a discussion on spill observation terminology (quick table of definitions) and guidelines for photo documentation (pictures and videos) of slick location and appearance. Identify internal or external sources of surveillance/tracking equipment and/or services; including data buoys, vessels, aircraft, satellites, radars and surveillance personnel. Names and contact information for these services should be referenced in **Section 4.0 Response Resources**.

If known, explain how surveillance and tracking information will be recorded, displayed and disseminated to the appropriate members of the Spill Management Team for decision-making and direction of cleanup operations.

2.5.5 Oceanographic and Meteorological Information

Provide brief summary of available temperature (air and water), wind, wave, and surface current information for the geographic response area. Include tables with associated information such as monthly or seasonal maximum, minimum, mean values for wind and current speeds, temperatures, wave heights, precipitation, etc. and average wind and current directions. Monthly/seasonal wind and current roses can be substituted for tabular information. Any facilities equipped with meteorological stations and/or current meters that can provide real time wind and current data should be identified. For plans covering multiple facilities over an extended geographic area, information should be provided for groups of facilities or specific areas.

2.6 Response Facilities

2.6.1 Pre-Designated Incident Response Facilities

Provide a description and/or list of the company's pre-designated onshore Command Posts, Staging Areas, Forward Command Posts (fixed or floating), Incident/Crisis Centers and other response facilities. Consider including a table that identifies each facility, its purpose, address, and, if necessary, any activation procedures required for these facilities. **Section 3.0 Notifications and Contact Information** should be referenced for each facility's contact information if available.

Sample Table of Pre-Designated Incident Facilities

Facility Name	Location or Address	Purpose	Size and Occupancy	Activation Procedure

2.7 Response Information Management

2.7.1 Common Operating Picture

Describe how the Spill Management Team will maintain a **Common Operating Picture** of the response operation. List all equipment and resources, including third-party vendors who will track and display response activities. Contact information for the vendors should be provided in **Section 4.0 Response Resources**.

Include a discussion of any technologies that will be utilized, such as vessel Automatic Identification System or other tracking systems.

Describe how situational awareness will be provided to the Federal government officials, as well as State and Local governments to explain communications, safety, security, and emergency response activities.

2.7.2 Simultaneous Operations

Describe how source control and surface oil spill response will be coordinated to safely and efficiently use incident resources. Identify the team members who will coordinate simultaneous operations, and how they communicate on a regular basis.

Refer to the company's Well Containment Plan or other source control plans if this information is covered in those documents.

2.8 Oil Characteristics and Mass Balance Information

Describe that after oil is spilled into the environment, a wide variety of natural physical, chemical and biological processes (weathering) can significantly affect the volume of floating oil that needs to be addressed through response actions. Some of these processes (evaporation, natural dispersion,

dissolution, etc.) may reduce the volume of oil on the water's surface while others (emulsification) may increase volume.

Describe how the amount of surface oil remaining for mechanical recovery may be reduced by other removal actions, such as:

- Subsea dispersant application during subsea uncontrolled well flow incidents
- Surface application of dispersants
- Use of in-situ burning

Describe the methodology in place to predict changes in the volume of surface oil due to weathering and removal actions. Describe how during a response, this information should be updated on a regular basis and available for inclusion on necessary ICS forms (ICS Form 209).

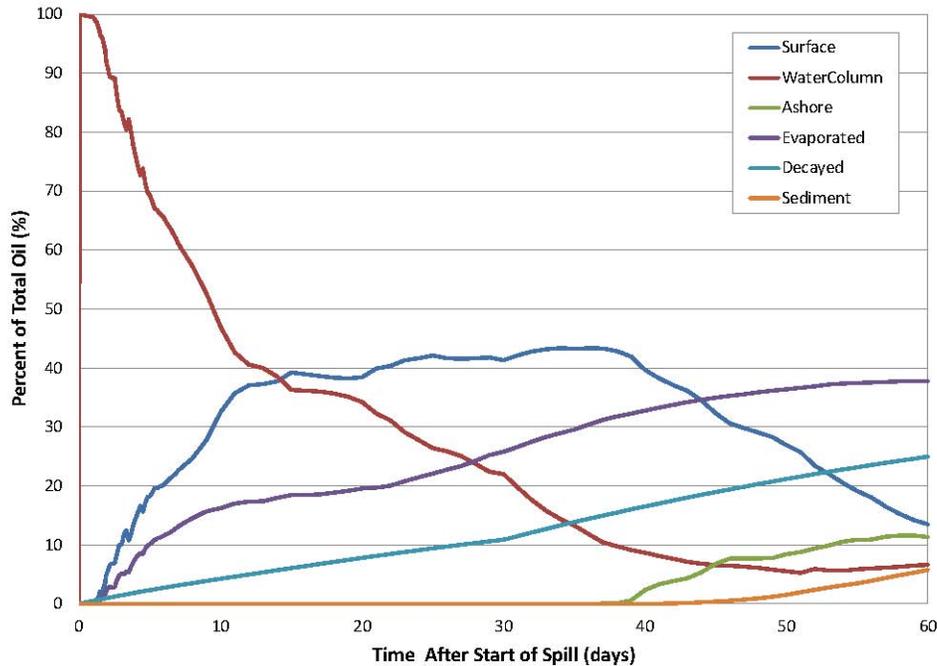
2.8.1 Oil Weathering

Provide information on the weathering processes of the oil(s) produced or handled and how they can affect the response. Physical and chemical properties (e.g., specific gravity, viscosity, pour point, solubility, volatile and asphaltene content, etc.) of individual oils will change as the oil weathers. This affects the oil's behavior on the water as well as applicable response options.

The spill volume may be reduced due to evaporation, natural dispersion, and dissolution. Emulsification will work to increase the volume of remaining oil by mixing water into the surface slicks. Emulsification can also increase oil viscosity requiring specialized pumping/oil transfer equipment and can affect the applicability of dispersants and in-situ burning. Conversely, evaporation as well as natural dispersion can substantially reduce the amount of oil to be recovered often by as much as 50 percent over the first few days. This information can be used to inform the planning process with respect to mechanical recovery, dispersant and in situ burning capability needs. Consider referencing **Appendix B – Facility Descriptions** if applicable, for additional oil property information.

If weathering/fate and persistence studies (physical or modeled) have been conducted on the oil produced or handled by the covered facility/facilities, the results should be summarized in this section.

An example of the modeling results (60 days) of natural weathering and other processes on the mass balance for a hypothetical 30-day, 250,000 bpd deepwater (6,000 ft) well blowout (API 30) is provided below.



Mass balance plot for a 30-day deep water release over a 60-day spill simulation using the SIMAP 3D fates model. The y-axis shows the oil amount as a percent of the total spill volume.

Example Oil Mass Balance Table

2.8.2 Response Actions and Mass Balance

Provide guidelines on gathering data or conducting modeling to calculate spill volume reductions due to response actions including:

- Dispersants – subsea, surface, aerial (it is suggested that these be separated where possible)
- In-situ burning
- Mechanical recovery
- Direct recovery – subsea capping and containment, etc.
- Shoreline oil recovery

When combined with volume changes due to natural weathering processes, these calculations can be used in the planning process to more accurately estimate the quantity of resources required to implement various response options including mechanical recovery.

An example of response action and natural weathering mass balance calculations for a hypothetical loss of well control incident is provided below. This example represents the release of a light oil and a flow with a high gas to oil ratio (GOR).

WCD Mass Balance Estimates For Well at 6,000 ft		
Daily Discharge Volume (BPD)	110,000	
Subsea Dispersion (BPD)	30,860	Assumes 14,400 gallons per day, 1:100 DOR, and 90% effectiveness
Remaining	79,140	
Naturally Dispersed Subsea (BPD)	15,830	Assumes 20% of remainder naturally disperses before reaching surface
Remaining	63,310	
Surface Evaporation/Natural Dispersion (BPD)	18,993	Assumes 30% of oil that reaches surface evaporates
Remaining	44,317	
Aerial Dispersant	4,090	Assumes 11,450 gpd dispersants at 1:20 DOR and 75% effectiveness
<i>In-situ</i> burning	5,500	Assumes 5% of spill volume
Total Volume Remaining	34,727	Incorporates above credits

The types of information that are needed to calculate the mass balance for a deep water blowout should also be identified in this section, including:

- Release rate
- Oil type
- Gas to oil ratio
- Depth of the water at the well-head
- Temperature of the oil being released
- Inside diameter of the well pipe

Specialists used in determining release rates should be identified and referenced in **Section 4.9**. Include formulas, worksheets and other planning tools which will be utilized as appropriate and available.

Additionally, guidelines should be provided for determining and tracking the amount of oil in oil/water mixtures that are typically associated with mechanical recovery operations.

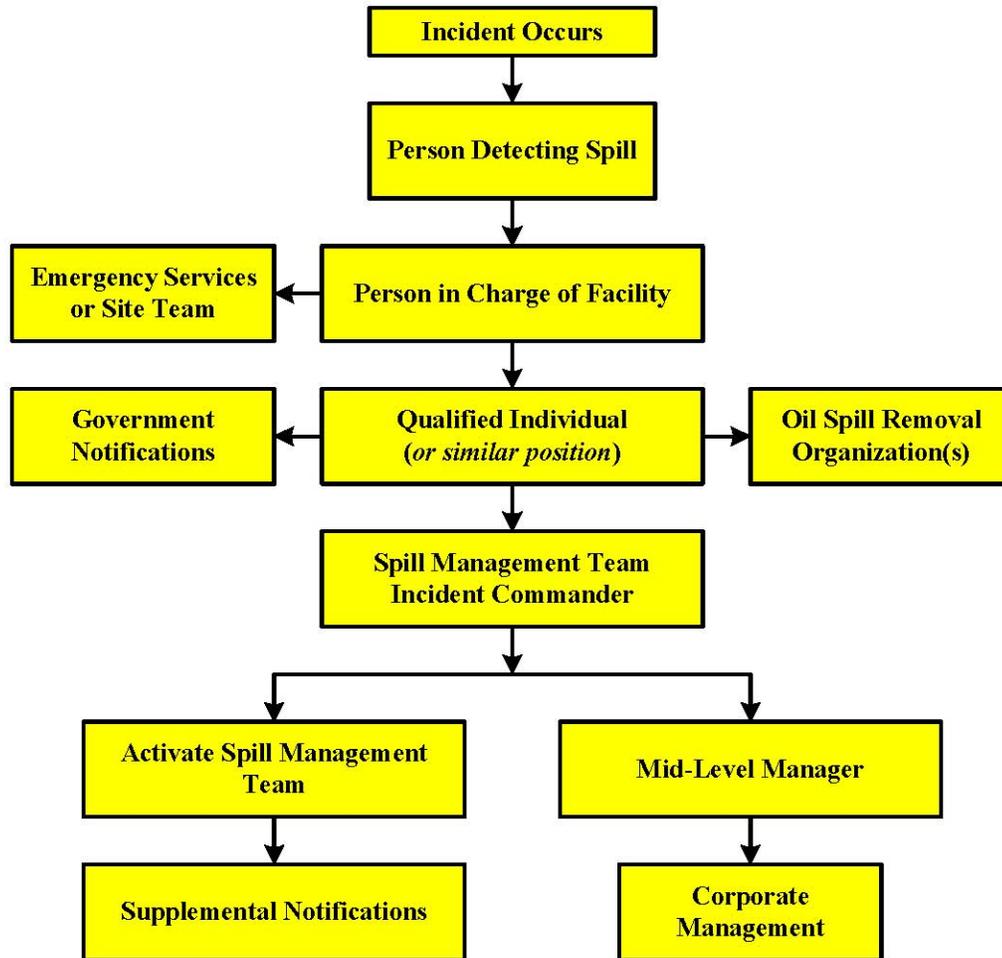
3 Notification and Contact Information

Section Purpose: To provide a single section containing all company, regulatory and other notification procedures, requirements, responsibilities and a directory with contact information that may be required or necessary following a release. The directory would include contact information for personnel and organizations that are required to, as well as those that could or should, be notified of a spill. Contact information for OSROs, equipment suppliers, support services, subject matter experts and other resources would be provided in **Section 4.0**.

A notification flow chart and contact directory should be placed near the front of the section for quick access. The section divider tab, if used, should be colored red to draw the user to this section.

3.1 General Notification Information

Provide a brief narrative of the notification process and responsibilities, followed by a notification flowchart or decision diagram summarizing the type (internal, regulatory, contractor, etc.) and sequence of notifications.



Sample Notification Flowchart

Include a table of internal and external individuals and organizations to be notified in the event of a spill along with their contact information. These parties should be grouped and displayed in the general order in which notifications would occur. Examples of common organizations and a suggested notification sequence are provided below along with an abbreviated table:

- Facility Personnel, Company Tier 1 Team (if any), Qualified Individuals, Company Incident Commanders (if different from QI's)
- Company Management/Executives
- Spill Management Team
- Federal Agencies (required notifications)
- State Agencies (required notifications)
- Local Agencies (required notifications)
- Other Regulatory Agencies/Government Organizations (as appropriate)
- Adjacent/nearby facilities or organizations

Include a reference to **Section 4.0** for Oil Spill Removal Organization and other response resource contact information.

Sample Notification Contact Directory

Company Personnel					
Response Position/Function	Normal Job Title or Position	Name	Contact Numbers/Information		
			Primary	Secondary	Email/Fax/Alt.
Facility/Local Response Personnel (Tier 1 Team)					
Qualified Individuals and/or Incident Commanders					
Company Management/Executive Personnel					
Government Agencies					
Regulatory Agency Notifications			Contact Numbers/Information		
			Primary	Secondary	Email/Fax/Alt.
Organization					
Spill Management Team					
Response Position/Function	Normal Job Title or Position	Name	Contact Numbers/Information		
			Primary	Secondary	Email/Fax/Alt.
Regional/Corporate Response Personnel (Tier 2 Team)					
Adjacent/Nearby Facilities and Organizations					
Adjacent/Nearby Facilities/Organizations			Contact Numbers/Information		
			Primary	Secondary	Email/Fax/Alt.
Organization					

Supplemental Notifications			
Supplemental Notifications (See Section 3.5)	Contact Numbers/Information		
	Primary	Secondary	Email/Fax/Alt.
Organization			

3.2 Internal Reporting Requirements

Describe company oil spill notification requirements and procedures for both verbal and written reports.

3.3 Spill Management Team Alert Procedures

Describe how the Spill Management Team is alerted and activated to respond. Include any descriptions of call trees, mass notification systems, or other communication systems used to activate the team. Include contact information for Spill Management Team members in the Contact Directory.

3.4 Government Reporting Requirements

Summarize applicable verbal and written regulatory/governmental notification and reporting requirements. Include contact information for Government agencies in the Contact Directory. If not already included in Section 3.1, provide a decision diagram containing the sequence and requirements for various scenarios, as appropriate, depending on:

- Spilled/Released Material (oil, refined products, gases, etc.)
- Impacted Media (water, air, land)
- Spatial Extent (onsite, offsite, local community, etc.)

3.5 Supplemental Notifications

Include a brief discussion and information on supplemental notifications to internal personnel, external agencies/organizations, resource stakeholders, and others depending on the size and scope of the spill. Include contact information for supplemental organizations in the Contact Directory. Examples include:

- Supporting Regulatory Agencies (as appropriate)
- Federal and State Trustee Agencies
- Local Sensitive Area Managers (water intakes, marinas, wildlife refuges, parks, etc.)
- Community/Political Contacts
- Key stakeholder groups as appropriate

3.6 Notification Forms

Briefly describe internal and external notification forms that should be used to capture information required for verbal and written notifications. Include copies of the blank forms as figures or an attachment at the back of the section and/or directions to access electronic report forms. Consider pre-populating the forms with static information to expedite their completion during an emergency.

Refer to **Appendix D – Documentation** if notification forms will reside there.

4 Response Resources

Section Purpose: This section is intended to identify all essential resources that could be needed in a response along with their sources and associated contact/activation information. This precludes the user having to search several sections of the plan to determine what resources are available.

This section should identify significant equipment and personnel resources that will be used in a spill response, including equipment inspection and maintenance requirements. Identify sources of the response equipment and other resources or services and their mobilization times to the potential spill location(s). Sources of spill response related technical expertise should also be identified.

Well capping and containment, specialized contractors and the use of non-traditional resources such as vessels of opportunity and volunteers should also be identified and discussed at least in general terms in this section.

Contact information for the above resources should also be included in this section.

4.1 Resource Contact Information

Provide a brief description of the types of resources (equipment, services, supplies, subject matter experts, etc.) covered in this sub-section. Include a table listing contact information for significant oil spill response resources including the company/organization and, if appropriate, primary contact name, location and 24-hr and secondary phone numbers. Additionally, organizations that are currently under agreement with the company should be identified in the table.

Sample Resource Contact Information Table

Company or Organization	Primary Contact Name (optional)	Location	24 hr Number	Secondary Number
Company Owned Resources				
Primary Oil Spill Removal Organizations				
Aerial Surveillance				
Dispersant Application Subject Matter Experts				
Natural Resource Damage Assessment Subject Matter Experts				
Wildlife Response Resources				
Other Resource or Subject Matter Expert Types/Categories				

4.2 Resource Inventories and Mobilization Times

Identify the primary Oil Spill Removal Organizations that are under contract or can provide key response resources (boom, skimmers, barges, dispersants and application platforms, etc.) and how they will likely be utilized in a response. For example, due to varying capabilities between Oil Spill Removal Organizations, some may be more suited or pre-designated for offshore containment and recovery whereas others may only provide shoreline cleanup services. If company owned equipment will be utilized, it should be identified in this section as well.

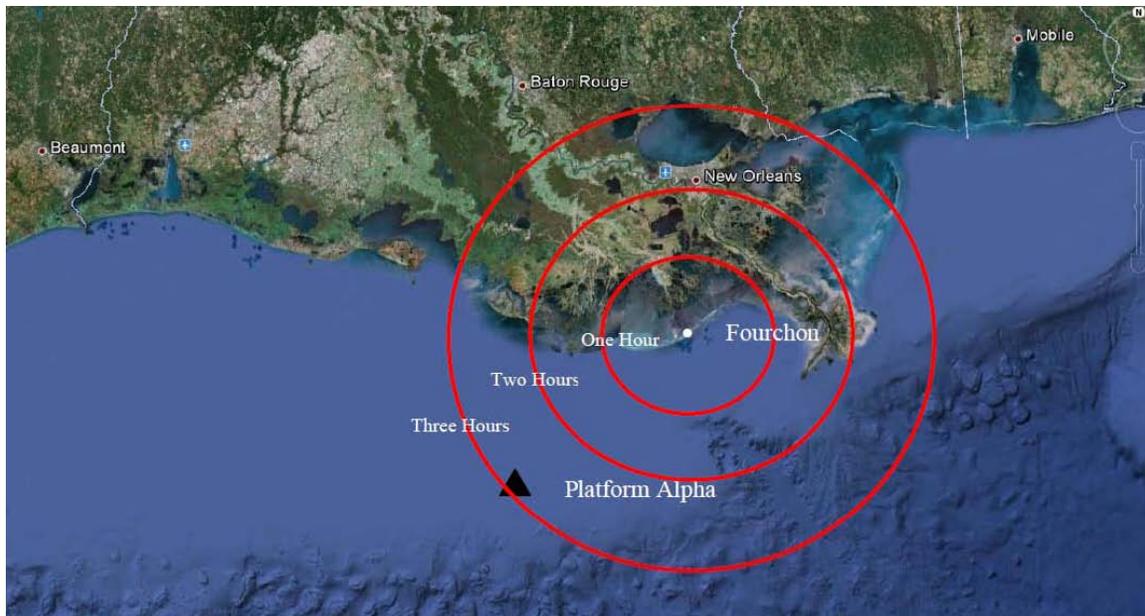
Resource inventory lists of the major response equipment and personnel should be included for the company and primary Oil Spill Removal Organizations. The lists should include at least those resources that could be mobilized to the site(s) in the first 24 hours to make the Oil Spill Response Plan as stand-alone as possible for the initial response phase. Alternatively, Oil Spill Removal Organizations websites or those that maintain compilations of resource inventories such as the Response Resource Inventory can be referenced for that information.

An abbreviated example of a resource inventory table follows.

Sample Initial Response Resource Inventory Table

Recovery				
Quantity	Equipment Type	Total Derated Capacity /EDRC (bpd)	Location	Owner
Containment				
Quantity	Size	Type	Location	Owner
Storage				
Quantity	Equipment Type	Total Capacity (bbl)	Location	Owner
Dispersants				
Quantity	Type	Storage Container	Location	Owner
In-situ Burning (Fire Boom)				
Quantity	Size	Type	Location	Owner
Trained Personnel				
Quantity	Qualifications	Location	Owner	

Mobilization times for key response resources to reach each facility or groups of facilities should also be included and can be addressed by including maps of the geographic area of interest showing facility locations and resource staging areas with successive circles drawn around each area indicating approximate travel times. Include realistic activation time and load out times in separate table or text.



Sample Response Mobilization Time Map

Alternatively, consideration should be given to preparing a table for each facility or group of facilities identifying the response tiers and/or applicable regulatory planning standards and listing the resources (boom, recovery, storage, personnel) available to meet the resource and mobilization time requirements. An abbreviated example is provided below that also serves as a tool for quickly identifying sources of various response equipment.

Sample Tiered Response Resources

Available Resources					
Category	Type/Primary Use	Quantity	Size/Derated Capacity	Location	Owner
Tier 1/Minor Spill Resources					
Boom	Expandi/Offshore	2,000-ft	43-in	Houma	CGA
	Curtain/Nearshore	2,000-ft	24-in	Houma	CGA
	Total	4,000-ft			
Recovery	46-ft OSRV/Offshore	1	5,000 bpd	Houma	CGA
	Total	2	48,000 bpd		
Storage	HOSS Barge/Nearshore	1	4,130 bbl	Houma	CGA
	Barge/Nearshore	1	249 bbl	Houma	CGA
	Total	2	4,379 bbl		
Dispersants	Corexit 9500	2,000 gal		Houma	CGA
In-situ Burning	Hydro Fire Boom and Pumping System	6	500 ft	Galveston	MSRC
Tier 2/Moderate Spill Resources					
Boom	From Above	4,000-ft	Various		
	Sea Sentry/Offshore	9,460-ft	60-in	Lake Charles – Gulf Coast Responder	MSRC
	Slickbar/Nearshore	1,000-ft	24-in	Lake Charles	MSRC
	Total	14,460-ft			
Recovery	HOSS/Nearshore	1	43,000 bpd		
	Transrec 350/Offshore	1	10,567 bpd	Lake Charles – Gulf Coast Responder	MSRC
	Total	3	58,567 bpd		
Storage	From Above	2	4,379 bbl		
	OSRV	1	4,000 bbl	Lake Charles – Gulf Coast Responder	MSRC
	Total	3	8,379 bbl		
Dispersants	From Above	2,000			
	Corexit 9500	50,000 gal		Houma	NRC
	Total	52,000			
In-situ Burning	From Above	6	500		
	Hydro Fire Boom and Pumping System	14	500 ft	Fort Jackson	MSRC
	Total	20			

Tier 3/Major Spill Resources					
Category	Type/Primary Use	Quantity	Size/Derated Capacity	Location	Owner
Boom	From Above	14,460-ft	Various		
	Total				
Recovery	From Above	3	58,567 bpd		
	Total				
Storage	From Above	3	8,379 bbl		
	Total				
Dispersants	From Above	52,000			
	Corexit 9500	100,000 gal			
	Total	152,000			
In-situ Burning	From Above	20			
	Hydro Fire Boom and Pumping System	10			
	Total	30			

4.3 Source Control Resources

Describe the key resources owned or available under contract to the company for conducting subsea source control activities if applicable. If the company will rely on third party resources and/or expertise, include a discussion of how the parties will be activated and how their activities will be coordinated with other response activities. Due to the significant scope and complexities of conducting subsea source control operations, it is anticipated a separate source control plan will be prepared and that can be referenced in this plan for additional details on resources, deployment procedures, coordination with the spill response, etc.

4.3.1 General Source Control Resources

Include a list of the following types of resources available to assist with source control operations. Contact information for these companies should be referenced in Section 4.1:

- Well Control contractors
- Divers
- Repair and Construction Contractors
- Salvage Contractors

4.3.2 Sub-Sea Well Containment or Capping

Describe, in general terms, the sub-sea well control resources that will likely be utilized in a loss of well control incident including references to third party organizations such as MWCC and/or HWCG. Contact information for these companies should be referenced in **Section 4.1**. Provide a list of the major equipment such as, but not limited to:

- Capping stacks
- Riser systems
- Sub-sea dispersant application
- Remotely Operated Vehicles
- Recovered oil/gas/liquids processing, storage and transportation, etc.

4.4 Escalating Resources

Discuss the considerations for acquiring and mobilizing additional resources should a spill escalate to a Tier 2 or 3 incident. A key consideration is cascading resources in from other areas, which could affect industry's compliance with planning standards/preparedness levels in the donor region. Another consideration is identifying contractors that can assist in quickly retaining large numbers of response personnel, training those personnel, establishing camps for housing and messing the personnel, setting up staging areas to temporarily store large quantities of equipment and supplies, etc.

It is important to note that since offshore facilities do not commonly maintain onsite response resources, the primary Oil Spill Removal Organizations will often be capable of providing both Tier 1 and Tier 2 level resources and possibly Tier 3 as well. In some cases, the facility worst-case discharge may be of small enough volume that it will never require a Tier 3 level response. Consequently, it may not be of value to identify separate sets of resources and/or their sources for each Tier. In most cases, however, identifying resources for the different tiers will demonstrate that sufficient resources are available to adequately respond to a variety of spills including a worst-case discharge. It will also serve as a tool to enable responders to quickly identify the appropriate resources, their locations, and mobilization issues if the incident involves rapidly escalating resource needs.

4.4.1 Tier 1

Generally identify the equipment and personnel resources, and/or their sources, that are available to implement a Tier 1 response along with the activation protocols. More specifically, the effective daily recovery capacity or Estimated Daily Recovery Capacity, available boom and interim storage, activation timelines, and response personnel available to deploy and operate the equipment should be listed to demonstrate adequate capabilities. Consider providing information in a tabular format similar to the example at the end of Section 4.2.

4.4.2 Tier 2

Provide the same information as above for Tier 1. Tier 2 activation should also consider mobilization of mutual aid members and any other contracted resources available in the region and provide protocols for activation. In many cases the primary Oil Spill Removal Organizations will often be capable of providing both Tier 1 and Tier 2 level resources and possibly Tier 3 as well. In this case it will not be necessary to separate them out but rather to note the Tiers the organization and associated resources will cover.

4.4.3 Tier 3

Provide the same information as above for Tier 2 but include available out-of-region national, as well as international resources and provide activation protocols if different than Tier 2. Consider including external technical and governmental resources.

4.5 Equipment Maintenance and Readiness

Describe how company-owned or contracted oil spill response equipment is maintained and inspected, including frequencies, and the criteria for readiness. For contractor-owned resources, refer to contractor maintenance and readiness system documentation when possible.

4.6 Vessels of Opportunity (VOO)

Describe how the company in the course of a spill response may choose to utilize a vessel of opportunity (VOO) program to support specific response activities. This could include transportation of people or equipment, spill containment efforts, spill monitoring, removal actions or other spill response activities if appropriate training is provided.

A VOO fleet is comprised of private or commercial vessels of sufficient size and capability to perform the needed response tasks. Define vessels of opportunity and how they are typically utilized in a spill response. Describe any pre-established processes for establishing and managing a vessels of opportunity (VOO) program. If a program is not in place, then consider providing guidelines that would aid in establishing a program during a response.

General considerations which may apply to establishment of a VOO Program:

- Identifying vessel needs (Operations Section)
- Recruiting of vessel owners (Logistics Section)
- Vessel selection criteria
- Qualifications for the crew
- Contracting and policy for compensation
- Training requirements (HAZWOPER, health and safety, spill response)
- Vessel Inspection/Certification
- Outfitting, including HSE requirements such as first aid kits, fire extinguishers, spill kits, etc. that may not already be on the vessel
- Integration with the Spill Management Team (i.e. VOO Branch)
- Decontamination and demobilization procedures
- It may be necessary to provide translation support for enrollment, training and materials relating to VOO
- HAZWOPER trained personnel should be required on all vessels which may be exposed to hazardous materials
- Insurance coverage for vessels

VOO Contracting

Terms and Conditions between the company and vessel owner may include insurance provisions, rates and payment process, injury management, decontamination and demobilization procedures. The vessel owner is usually expected to take responsibility for the crew's ongoing fitness for work. The company may consider reserving the right to conduct drug and alcohol testing at any time as part of an established Code of Conduct.

VOO Activation into Response Operations

The activation process may be managed as follows:

- Work plans (such as an ICS 204) are developed for each task and VOO vessels are assigned
- Selected vessels are called out by Logistics VOO Branch and put on active status in preparation for deployment
- Vessel owners have the option to decline but remain in the pool
- If a vessel owner accepts, they will be given dispatch instructions to report to the staging area at an appointed time
- Vessel safety may be vetted via inspection and photography using USCG prescribed guidelines. A standard system should be used to record vessel status
- Vessels should be operationally deployed for a pre-agreed period
- VOOs integrated into Operations may be externally marked and should have recognized tracking systems on the lead vessel. AIS tracking may be required by USCG for offshore zones (greater than 3NM of the maritime baseline out to the source zone)

Guidelines for identifying the most appropriate vessel sizes and types for the anticipate VOO activities should also be considered for inclusion. A vessel selection matrix example is provided below.

Example of Vessel Selection Matrix

Vessel Size					
Zone		<30 ft (Type I)	30-45 ft Type II)	45-65 ft (Type III)	>65 ft (Type IV)
	Offshore (Greater than 3 NM of the maritime baseline)		Yes	Yes	Yes
	Near-Shore (Within 3 NM of the maritime baseline)	Yes	Yes	Yes	Yes
	In-Shore (Waters inside the maritime baseline. Includes beaches, marshes, and estuaries)	Yes	Yes		
	Shallow (Less than 6 ft of water)	Yes			

		Offshore	Near shore	Inshore	Shallow
Response Activity	Boom deployment	III, IV	II, III, IV	I, II	I
	Boom tending/maintenance	II, III, IV	ALL	I, II	I
	Skimming operations (trawling containment boom or similar operations)	III, IV	II, III, IV	I, II	I
	Sheen, light oil recovery, and tar ball recovery (excludes containment boom)	II, III, IV	II, III	I, II	I
	Removal of oily waste (sorberent booms and pads)	III, IV	II, III, IV	I, II	I
	Decontamination support	II, III, IV	I, II, III	I, II	I
	Transportation (supplies)	III, IV	II, III, IV	I, II	I
	Transportation (personnel/wildlife)	III, IV	II, III, IV	I, II	I

4.7 Support Resources

The need for, and types of, support contractors and service providers that could be required in a response should be described in this section. The focus should be on local, regional, and national resources that have the capacity to support up to a Tier 3 incident. Include a brief description of how these resources can be ramped up to a Tier 2 or 3 event. Contact information for these companies should be referenced in Section 4.1. Companies should be segregated by type or resource or service and listed in the order of preference. Examples of support resources include:

- Heavy equipment (bull dozers, backhoes, etc.)
- Generators, light plants

- Portable toilets, showers
- Caterers
- Housing
- Bus/transportation services
- Charter aircraft (helicopter/fixed wing)
- Tug and barge companies
- Divers

Those that have existing contracts or agreements with the company should be identified. Consider referencing Regional and Area Contingency Plans, when applicable, for identifying these specialized service providers.

4.8 Volunteers

Briefly discuss the use of volunteers and the conditions which they may provide assistance as well as applicable company policies. Generally, volunteers may participate in administration, communications, food service, wildlife rehabilitation, or other low risk/potential exposure activities. If a volunteer management organization is contemplated, the candidates should be identified and an explanation included of how their activities will be managed and coordinated by the Spill Management Team. This section should clearly define the legal obligations of the company and volunteer management organization, and conditions or circumstances for which volunteers may or may not be utilized. Supplemental information that could be included consists of:

- Identification of potential volunteer organizations (contact information for these organizations should be referenced in Section 4.1)
- Clear volunteer selection criteria
- Requirement to register with spill management team
- Identification of PPE and other safety equipment to be provided, if any
- Decontamination requirements
- Insurance arrangements
- Volunteer training requirements
- HAZWOPER (required)
- General Health and Safety (recommended)
- Oil Spill Response (recommended)
- Pre-determined roles the volunteers will fill
- Procedures for posting of phone numbers or websites where volunteering information can be obtained
- References for published volunteer guidelines (contained in some Area Contingency Plans)

4.9 Specialty Expertise

Identify technical experts that are commonly utilized in spill response operations and, where possible, describe the associated activation process. Names, locations and contact information should be included in the table in Section 4. Consider referencing Regional and Area Contingency Plans, when applicable for identifying these specialized service providers. Contact information for these companies and organizations should be referenced in Section 4.1.

Examples of subject matter experts and consultants that should be considered include:

- Mechanical recovery
- In-situ Burn
- Dispersants
- Safety
- Air monitoring
- Transportation
- Waste treatment, recycling and disposal
- Natural Resource Damage Assessment (NRDA)
- Shoreline Cleanup Assessment Teams (SCAT)
- Sensitive Area Technical Experts/Resource Managers:
 - Wildlife and Fisheries Agencies (Federal and State)
 - Wildlife Management Area Agencies
 - National and State Parks Agencies
 - County or City Public Park Managers
 - Non-governmental resource managers
 - Military zones or warning areas and military property officials

Consider referencing Regional and Area Contingency Plans, when applicable, for identifying these specialized service providers.

5 Response Organization

Section Purpose: The intent of this section is to establish interoperability within the company's overall incident management system and ensure a seamless expansion to a Tier 2 or 3 incident. It should also ensure that all Spill Management Team and other related response team members fully understand their roles and responsibilities and how they relate to the overall response.

Describe the Spill Management Team organization that will be used for Tier 1, 2 and 3 responses, as applicable, as well as the process for transitioning from tier to tier. It should include a discussion on the use of the National Incident Management System – Incident Command System and Unified Command concept. The duties and responsibilities for each team position should be described so they can be referenced by the personnel designated to fill those positions. In particular the duties, responsibilities and authorities of the

Incident Commander and/or Qualified Individual should be described in detail since they are responsible for overall response management and ensuring regulatory compliance.

To ensure comprehension of how various organizations will be integrated to form the Spill Management Team, an explanation should be provided on how Oil Spill Removal Organizations and/or contractors will, if applicable, be utilized in the response organization and what specific roles they may be pre-designated to fill. Also, if an onsite Tier 1 Spill Response Operating Team is utilized, the team organization, role and their interface with, or integration into, the Spill Management Team should be explained.

If the company has an Incident or Crisis Management Team above the Spill Management Team level, that team's role and structure should be described briefly along with how they will interface with the Spill Management Team. The applicable Crisis Management Plan or other company planning document can be referenced for additional information.

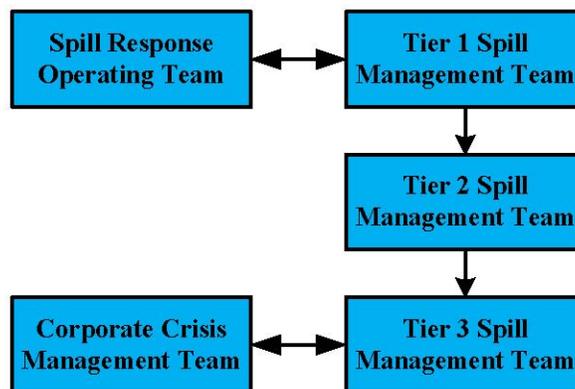
5.1 General Team Organization

In accordance with Homeland Security Presidential Directive No. 5, and under the National Response Framework, briefly describe how the Spill Management Team will utilize the National Incident Management System – Incident Command System structure for each tier of response. Describe the flexibility that Incident Command System provides to enable matching an integrated organizational structure to the complexities and demands of small to large and single or multiple incidents.

Include an explanation on how the Spill Management Team organization will be staffed, including the use of contracted Spill Management Teams if applicable. A common example includes:

- Initially by local facility Person-in-Charge and onsite personnel
- Subsequently by Incident Commander/Qualified Individual and Tier 1 Spill Management Team and/or Spill Response Operating Team
- Ultimately by Incident Commander/Unified Command and Tier 2/3 Spill Management Team and possibly supported by a company's Incident/Crisis Management Team

Include a flow diagram that identifies the general makeup and location of each team (Tier 1, Tier 2, Tier 3, Incident/Crisis Management, etc.). In most cases the Tier 1 team will consist of onsite company and contractor personnel that will perform both operational and spill management functions whereas others may just have an onsite Spill Response Operating Team to conduct the operational tasks with the Tier 1 management functions conducted elsewhere.



Spill Response Team Relationships

Describe the concepts of Unified Command and Responsible Party coordination with Federal On-Scene Coordinators and State On-Scene Coordinators. Also describe the concept and need of a Joint Information Center to coordinate release of incident information to the media and public. Detailed information on public information and external relations, including the Joint Information Center, should be referenced in **Appendix E Public Information and External Relations**.

5.2 Incident Commanders/Qualified Individuals

Briefly describe the duties and responsibilities of the designated, trained Incident Commanders and/or Qualified Individuals, including full authority to:

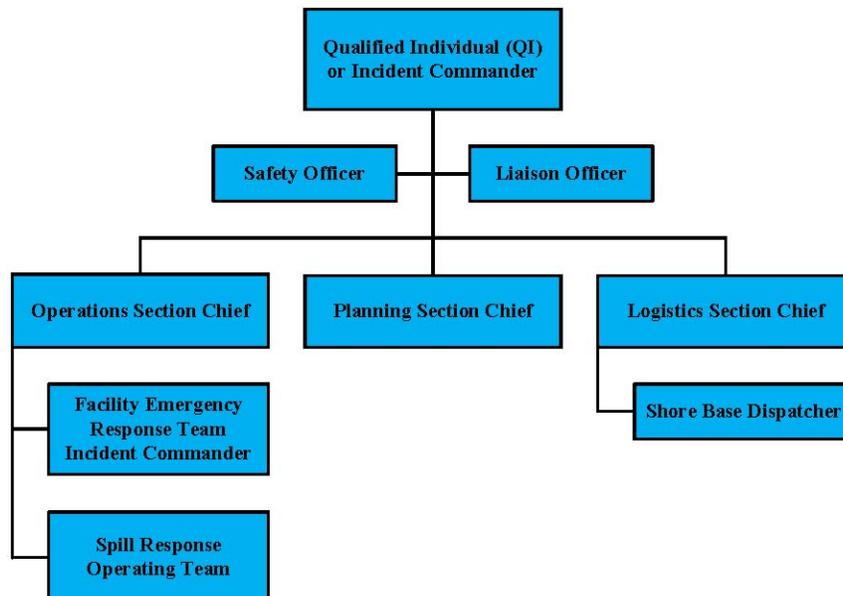
- Obligate funds.
- Implement Response Actions
- Immediately notify Federal Officials and Response Organizations.

Also describe how the primary and alternate Incident Commanders and/or Qualified Individuals have been delegated the responsibility and authority to direct and coordinate response operations on behalf of the Company. Refer to Section 3.1 for the names and contact information for the designated Incident Commanders and/or Qualified Individuals. Refer to **Appendix G Training, Drills and Exercises** for specific training requirements.

5.3 Spill Management Team Tier Structures

5.3.1 Tier 1 Spill Management Team

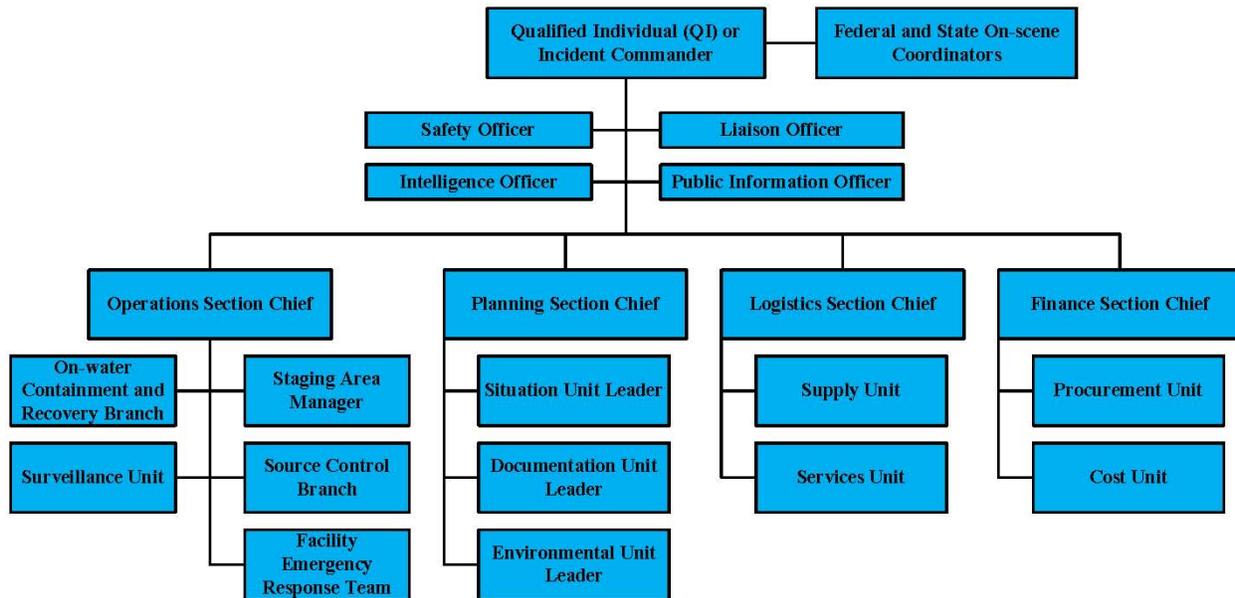
Describe the organization of the Tier 1 Spill Management Team; where it will be located; and how it will be staffed. If a separate Spill Response Operating Team is utilized to conduct onsite response activities then that team should be described here as well along with how they will interface with the Tier 1 Spill Management Team. Include an organization chart, similar to the example below, for the Tier 1 team.



Sample Tier 1 Spill Management Team Organization Chart

5.3.2 Tier 2 Spill Management Team

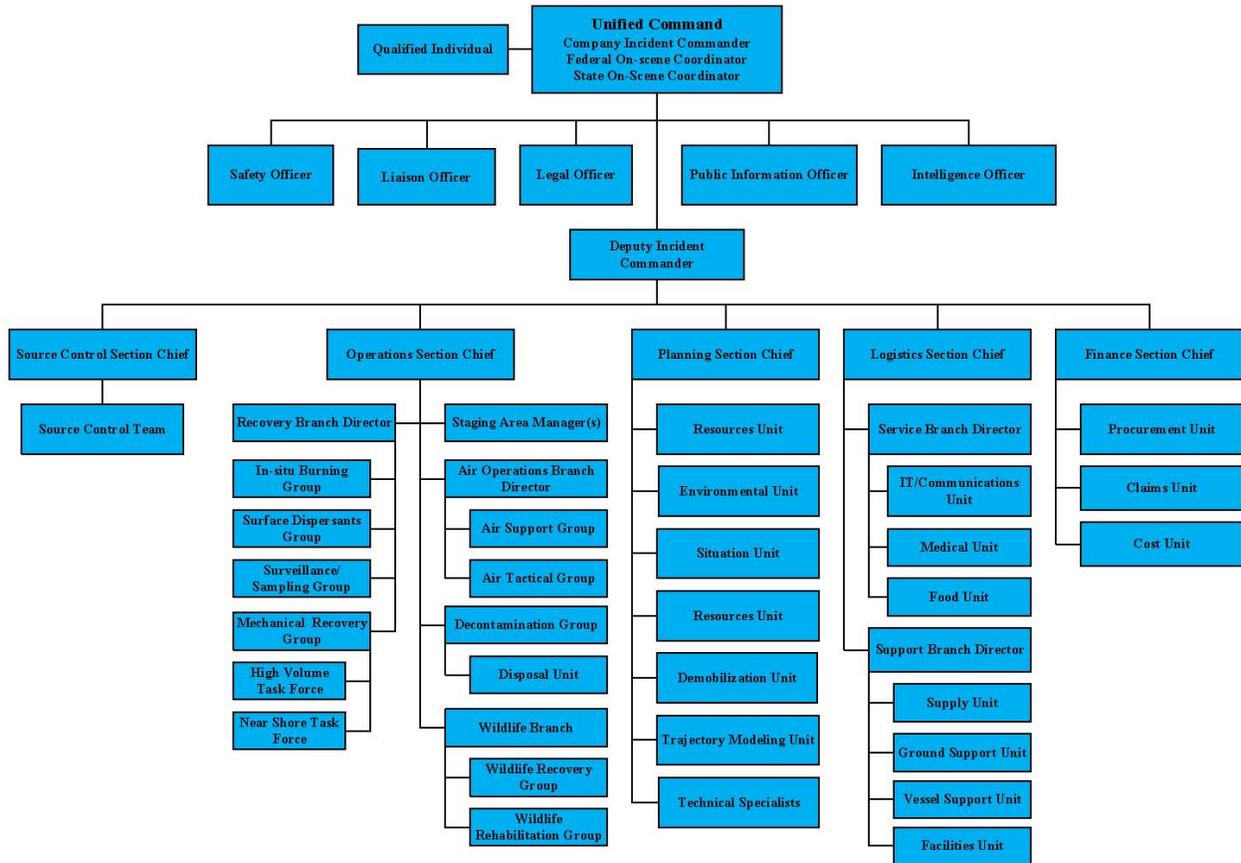
Describe the organization of the Tier 2 Spill Management Team, if different than the Tier 1 Team, where it will be located; and how it will be staffed. A discussion on the criteria for transitioning to the Tier 2 Spill Management Team should be included along with the transition process to ensure a seamless handover. Include an organization chart for the Tier 2 team that is structured under National Incident Management System Incident Command System format.



Sample Tier 2 Spill Management Team Organization Chart

5.3.3 Tier 3 Spill Management Team

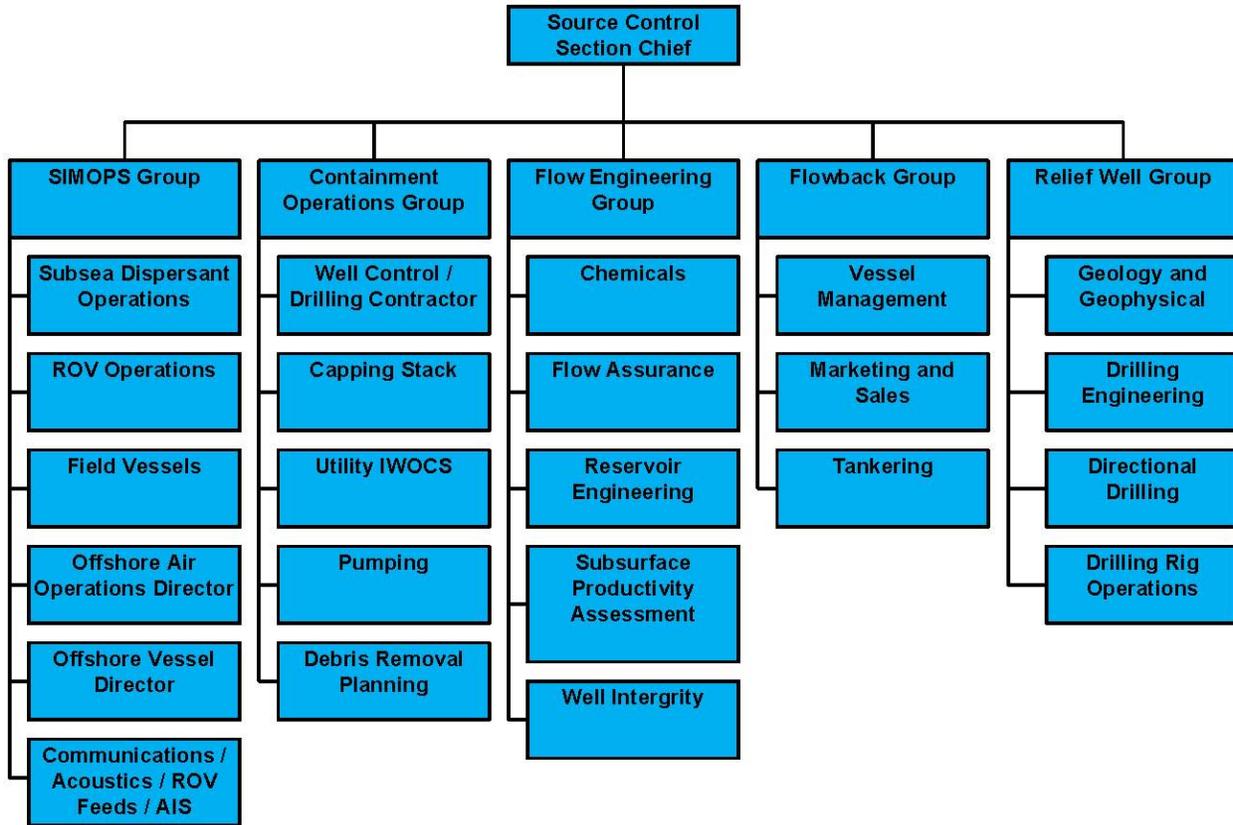
Describe the organization of the Tier 3 Spill Management Team, if different than the Tier 2 Team, where it will be located, and how it will be staffed. A discussion on the criteria for transitioning to the Tier 3 Spill Management Team should be included along with the transition process to ensure a seamless hand over. Include an organization chart for the Tier 3 team.



Sample Tier 3 Spill Management Team Organization Chart

5.3.4 Source Control Organization

For all tier levels, if there will be a robust Source Control Branch within the Operations Section or included as a separate Section, a description should be included as to how they are organized and how their activities will be managed and coordinated within the Spill Management Team organization. If a Source Control organization separate from the Spill Management Team is anticipated, then it should be described here along with how it will coordinate activities with the Spill Management Team. Include an organization chart for the Source Control team and reference the separate Source Control Plan for additional information if applicable. An example of how a robust Source Control Section/Branch could be organized is provided below.



Sample Source Control Organization – Subsea Well Containment

5.4 Roles and Responsibilities

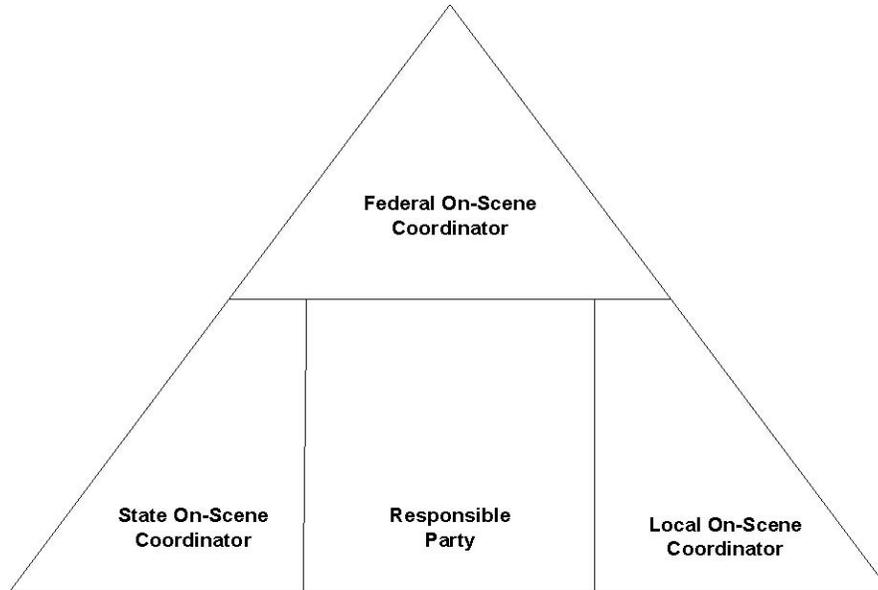
List the roles and responsibilities of each Spill Management Team position or at least down to the Unit Leader or Branch Director level if the team size is substantial. Consideration should be given to providing this information in a checklist format as shown below.

Sample Table for Roles and Responsibilities

Incident Commander
<p>Responsible for the overall management of the incident. The Incident Commander is the highest position in the Spill Management Team, and has final decision-making authority. It is the Incident Commander's responsibility to ensure a safe and effective response effort, while taking into consideration the priorities of public officials and stakeholders.</p>
<ul style="list-style-type: none"> <input type="checkbox"/> Review the incident report and assess the situation. <input type="checkbox"/> Activate the Spill Management Team. <input type="checkbox"/> Ensure that all proper emergency services are activated to rescue and treat victims. <input type="checkbox"/> Ensure that immediate agency notifications are being made. <input type="checkbox"/> Determine evacuation status and potential evacuation zone. <input type="checkbox"/> Establish an Incident Command Post. <input type="checkbox"/> Establish a Unified Command if necessary. <input type="checkbox"/> Hold an Initial Briefing for Command Staff and Section Chiefs. <input type="checkbox"/> Determine incident objectives priorities and strategies. <input type="checkbox"/> Establish an appropriate response organization with adequate span of control. <input type="checkbox"/> Ensure planning meetings are scheduled as required. <input type="checkbox"/> Approve and authorize the implementation of an Incident Action Plan. <input type="checkbox"/> Ensure that adequate safety measures are in place. <input type="checkbox"/> Coordinate all response activity with external response organizations. <input type="checkbox"/> Coordinate with key stakeholders and officials. <input type="checkbox"/> Approve requests for additional resources and demobilization of resources. <input type="checkbox"/> Authorize release of information to the news media. <input type="checkbox"/> Terminate the response at the appropriate time.

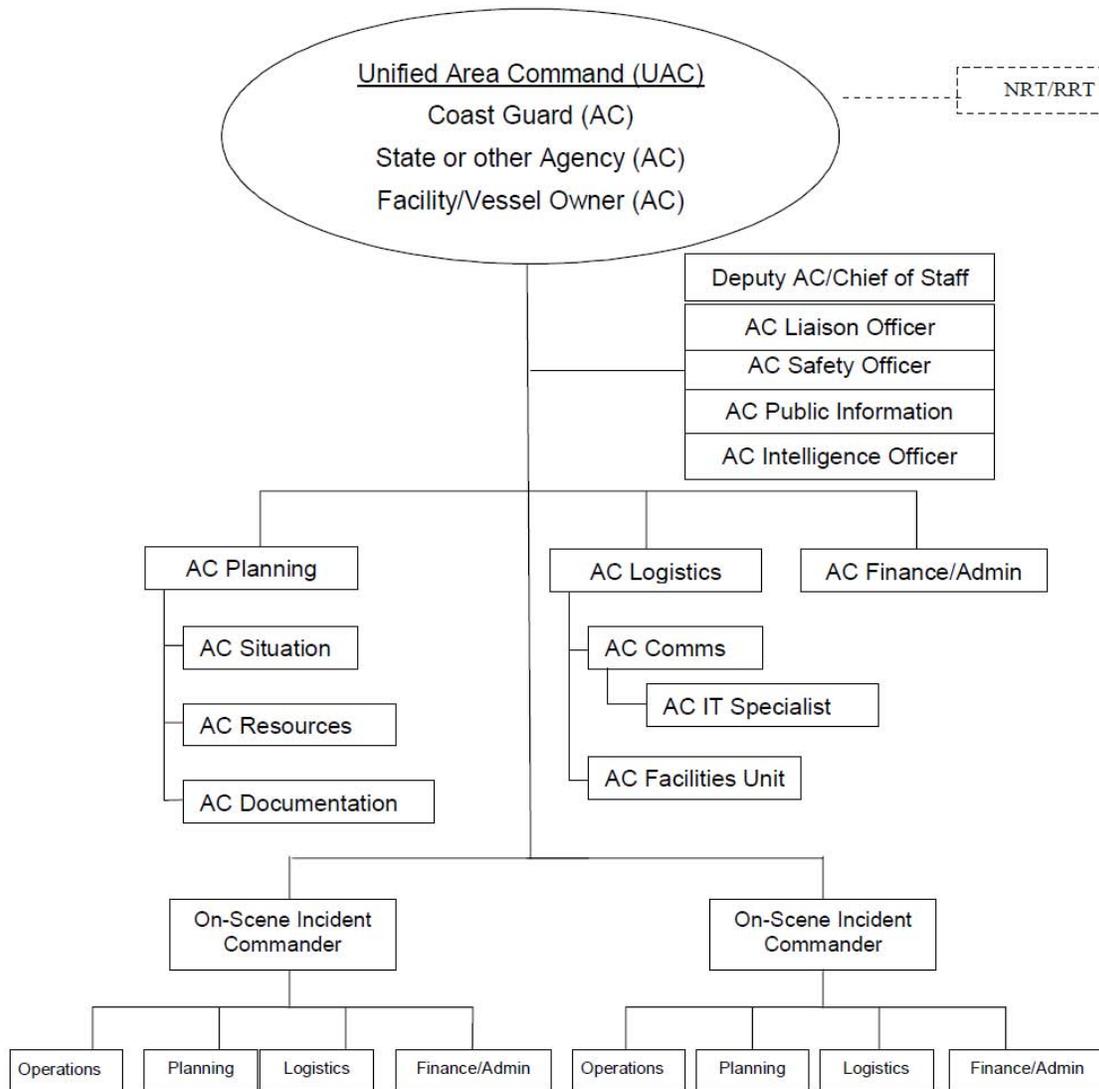
5.5 Unified Command

Describe the concepts of Unified Command and Responsible Party coordination with Federal On-Scene Coordinators, State On-Scene Coordinators and potentially Local On-Scene Coordinators.



Example Unified Command Diagram

Discuss the possibility of Area Command, and how the Spill Management Team will be organized under that model.

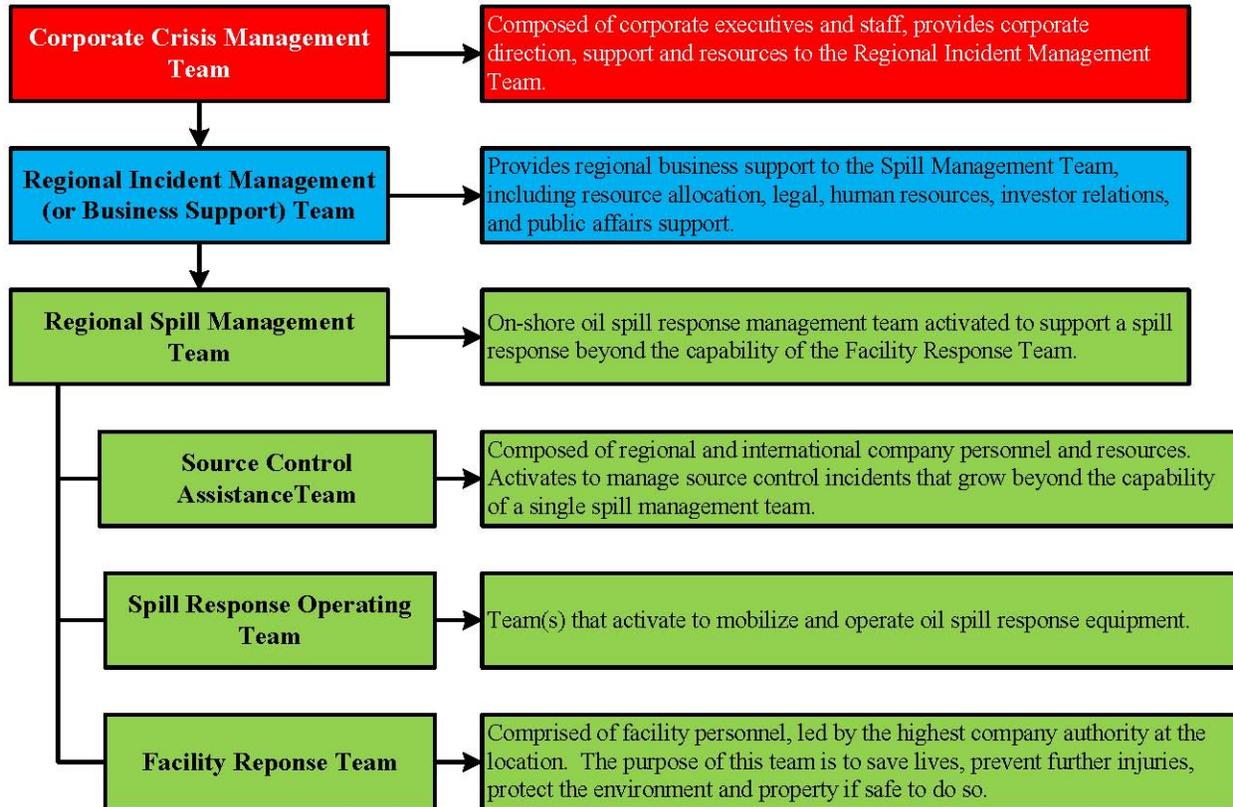


Example Area Command Diagram

(Source: U.S. Coast Guard Incident Management Handbook, August 2006)

5.6 Incident/Crisis Management Team

If the company has an Incident/Crisis Management Team that is separate from the Spill Management Team; describe the organization, its purpose and the roles and responsibilities of the different positions. Explain the relationship at each tier level. The criteria under which the team is activated should be included along with a discussion of the process for ensuring close coordination with the Spill Management Team.



Sample Company Response System

6 On-Water Response

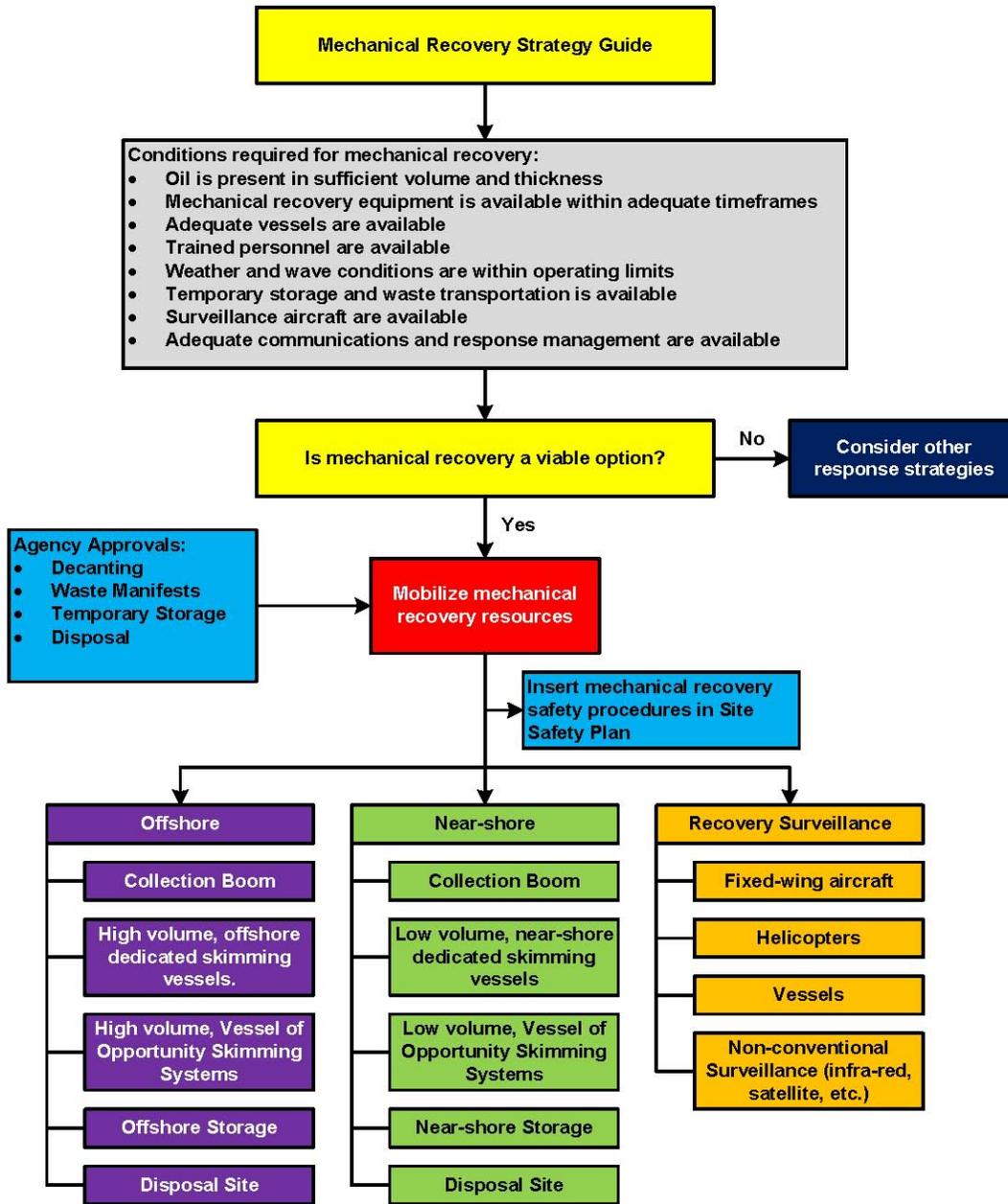
Section Purpose: To provide the Spill Management Team with a basic understanding of strategies, techniques and resources for on-water oil spill containment and removal operations. It should also provide guidance to Spill Response Operating Team members on conducting on-water response activities by describing how oil spills will be controlled, contained and recovered on-water using appropriate response strategies and available resources. Also include identification and protection measures for any offshore environmentally or economically sensitive areas.

6.1 Offshore Sensitive Areas

Include a list of any offshore sensitive areas in the geographic response area covered by the Oil Spill Response Plan. For each sensitive area, describe potential protection strategies as well as operations to avoid in that area as a means of minimizing the environmental impacts of the spill and the response.

6.2 Mechanical Containment and Recovery Guidelines

Insert a decision-tree or flowchart to guide responders through the decision-making process to use mechanical containment and recovery strategies.



Sample Mechanical Containment and Recovery Flowchart

6.2.1 Mechanical Containment and Recovery Strategies

Describe strategies and tactics for containing, recovering and storing floating oil (and/or subsea releases, as applicable and if a separate Source Control Plan is not prepared) including decision diagrams for technique and equipment selection.

Include brief descriptions, logistical considerations, and deployment configuration illustrations for each technique.

Due to distinct differences in strategies and equipment, this section can be broken down into:

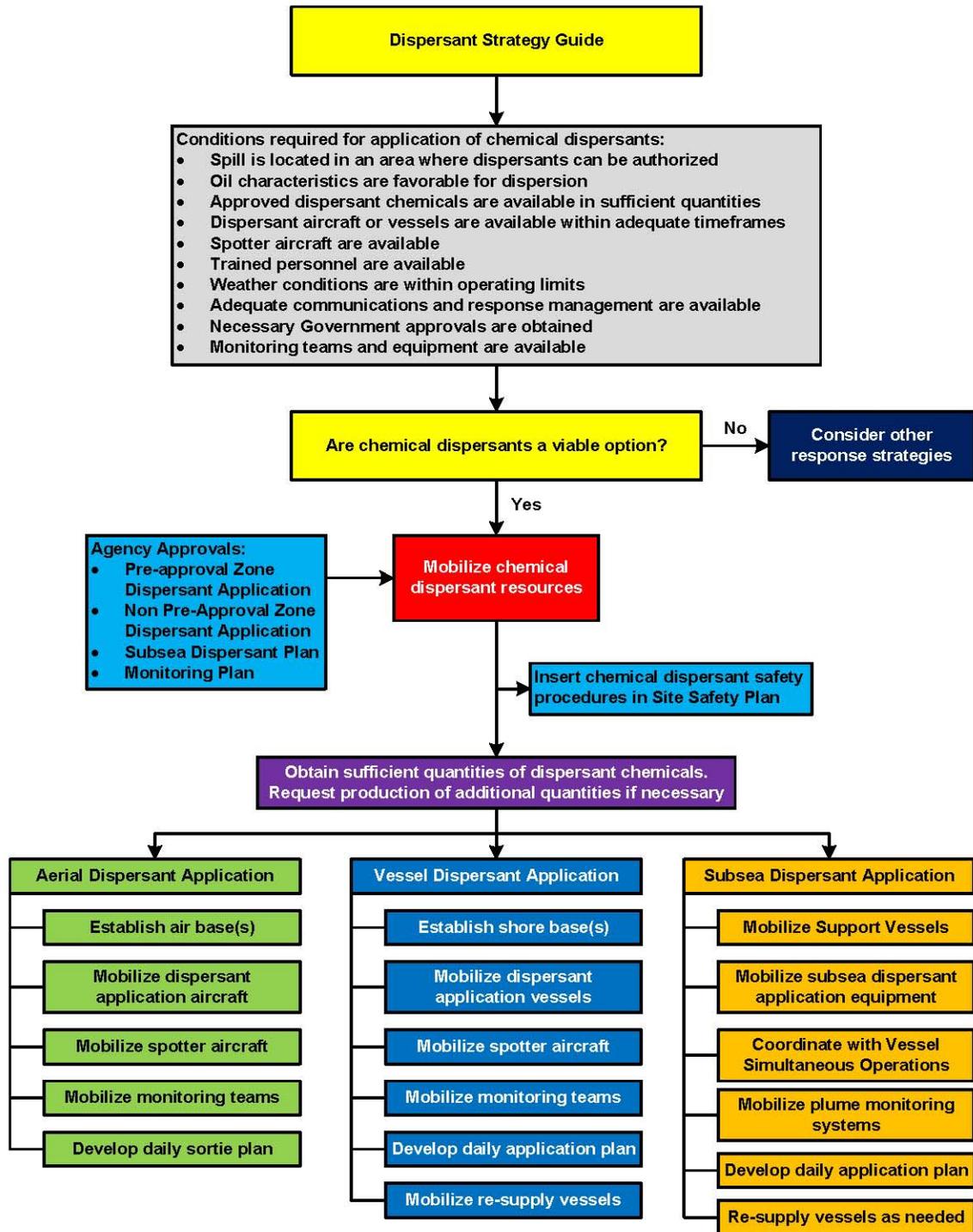
- Offshore Containment/High Volume Skimming
- Near Shore/Shallow Water Containment and Recovery – can include strategies for incorporating vessels of opportunity

If company owned and operated response equipment will be used under the direction of company personnel, the above information for the equipment or systems that will be used should be included in the plan. If only Oil Spill Removal Organization owned and operated resources will be used, then other documents such as tactical manuals or Area Contingency Plans can be referenced for this information.

Use standardized, defined terms to describe the range of environmental conditions anticipated and the capabilities of response equipment. Examples of acceptable terms include those defined in American Society for Testing of Materials (ASTM) publication *F625–94, Standard Practice for Describing Environmental Conditions Relevant to Spill Control Systems for Use on Water*, and *ASTM F818–93, Standard Definitions Relating to Spill Response Barriers*.

6.3 Dispersants

Insert a decision-tree or flowchart to guide responders through the decision-making process to use surface-applied chemical dispersants.



Sample Dispersant Flowchart

6.3.1 Dispersant Strategies

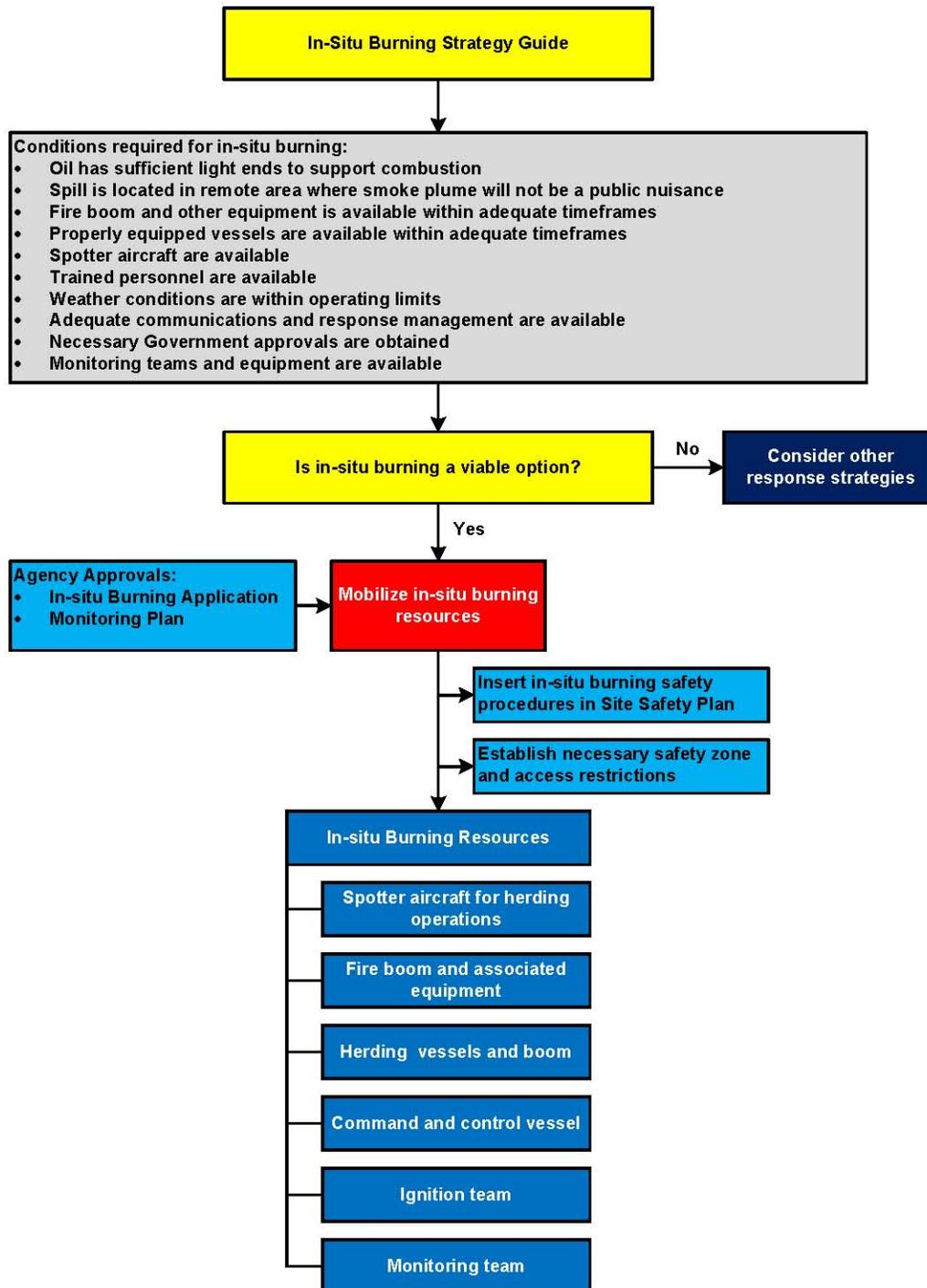
Briefly discuss the nature of dispersants and how they work. Describe the purpose and objectives of dispersant use (e.g. enhance biodegradation, minimize shoreline/wildlife impacts, vapor control, etc.). Discuss the factors that contribute to the general effectiveness of dispersants (e.g. response efficiencies, potential volume of oil dispersed/sortie). Discuss requirements and procedures for approval of dispersant use. Include decision diagrams and descriptions of strategies, tactics and general logistical considerations for dispersant use for both subsea (if applicable) and surface applications.

Include the following subsections:

- **Guidance Documents** – Provide references and/or summaries of the current Government Agency regulations, policies, operational requirements and usage limitations of dispersants in the geographic response area covered by the Oil Spill Response Plan. Sources of guidance documents would include the National Oil and Hazardous Substances Pollution Contingency Plan, applicable Area Contingency Plan(s), Regional Contingency Plan, agency policies, agency protocols, industry guides, etc.
- **Approval Process** – Describe the applicable dispersant approval process, information requirements, and the net environmental benefit assessment/analysis process. Include copies of the approval application forms.
- **Dispersant Plan** – Provide a template that discusses how dispersant operations will be conducted in accordance with the approved Dispersant Application. Include the monitoring requirements. This may be accomplished by utilizing an ICS 204, or for tier 2 and 3 spills, may require a stand-alone plan. The plan may be further divided between surface and subsea application, if necessary.
- **Dispersant Inventory** – Describe the dispersant stockpiles available to the company for use during a spill. Identify the quantities, locations, and deployment timeframes of each stockpile.
- **Aerial Application** – Briefly describe the process and timeline for mobilizing aerial dispersant application resources and key logistical considerations, application equipment, application methods, operational use limitations, etc.
- **Vessel Application** – Briefly describe the process and timeline for mobilizing vessel dispersant application resources and key logistical considerations, application equipment, application methods, operational use limitations, etc.
- **Subsea Application** – Briefly describe the process for any potential subsea dispersant application for an uncontrolled well flow, if applicable. If this information is provided in a separate Well Containment Plan or Source Control Plan, reference the applicable section(s). If there is not a separate plan, the additional information should be provided here.
- **Monitoring Plan** – Describe the need for a dispersant application monitoring plan (surface and/or subsea), the typical components, and the information required for each component. Consider referencing other sources of this information in lieu of including it in this section.
- **Safety Information** – Provide safety information for handling and applying dispersants, including recommended use of engineering controls and personal protective clothing for each type of application method.

6.4 In-Situ Burning

Insert a decision-tree or flowchart to guide responders through the decision-making process to use in-situ burning.



Sample In-Situ Burning Flowchart

6.4.1 In-Situ Burning Strategies

Briefly describe the in-situ burn process, general effectiveness (average burn rates, efficiency, etc.), limitations and logistical considerations including the potential use of vessels of opportunity and the required approvals. Describe the general strategies and tactics for performing in-situ burns.

Include the following subsections:

- **Guidance Documents** – Provide references and/or summaries of the current Government Agency regulations, policies, operational requirements and usage limitations of in-situ burning in the geographic response area covered by the Oil Spill Response Plan. Sources of guidance documents would include the National Oil and Hazardous Substances Pollution Contingency Plan, applicable Area Contingency Plan(s), Regional Contingency Plan, agency policies, agency protocols, industry guides, etc.
- **Approval Process** – Describe the applicable approval process, information requirements and typical monitoring protocols/requirements. Include copies of the approval application forms.
- **Implementation** – Briefly describe tactics, equipment types, deployment configurations (include illustrations), ignition methods, etc.
- **In-situ Burn Equipment Inventory** – Describe the in-situ burn equipment available to the company for use during a spill. Identify the quantities, locations, and deployment timeframes of each type of equipment.
- **In-situ Burn Plan** – Provide a template that discusses how in-situ burn operations will be conducted in accordance with the approved application. Include the monitoring requirements. This may be accomplished by utilizing an ICS 204, or for tier 2 and 3 spills, may require a stand-alone plan.
- **Monitoring Plan** – Describe the types of monitoring (oil volume, burn rates, air, water column, etc.) that may be required to obtain approval to burn and the typical components of a monitoring plan as well as the information for each component. Consider referencing other sources of this information if available in lieu of including it in this section. A template monitoring plan should be included if available.
- **Safety Information** – Provide safety information for in-situ burn operations, including recommended use of engineering controls and personal protective clothing. Also discuss the airborne hazards associated with smoke plumes, and recommended isolation distances.

6.5 On-Water Alternative Technologies

Briefly describe any applicable alternative response technologies, including their purpose, use, general logistical requirements and limitations.

Alternative technologies may include, but are not limited to:

- Bioremediation
- Sinking agents
- Solidifying agents
- Herding agents

- Hull cleaning agents

For each type of alternative technology under consideration for possible use, provide:

- General description, purpose and use
- Operational conditions for use
- Oil type compatibility and limitations
- Product information, including EPA approval status
- Method of application
- Product and application equipment locations and quantities
- Logistical requirements for deployment
- Deployment timeframes
- Application timeframes and duration of application
- Monitoring requirements
- Agency approval application and procedure
- Template for plan of use
- Safety considerations

7 Shoreline Response

Section Purpose: To provide the Spill Management Team with a basic understanding of strategies, techniques and resources for shoreline protection and cleanup. This section should identify environmentally, culturally and socio-economically sensitive shoreline areas. It should provide information on general shoreline protection measures, assessment techniques and cleanup strategies, including possible alternative technologies. Other documents, such as Area Contingency Plans, can be referenced for supplemental shoreline protection, assessment and cleanup information.

7.1 Shoreline/Sensitive Area Protection

Focus on protection of environmentally and socio-economically sensitive areas but also addresses general shoreline protection since the protection measures generally apply to both. Define and identify sensitive areas that could be impacted in the first 24 hours from one or more facilities covered by the plan. Describe their prioritization for protection and individual protection strategies and tactics including general logistical requirements and mobilization timeframes. This information can often be found in applicable Area Contingency Plans and, if so, should be duplicated in this section to ensure it is readily available in an incident.

Consider conducting spill trajectory analyses using temporal averages of wind and current speeds and directions for those facilities located within a reasonable proximity of known onshore or offshore sensitive areas to identify which areas are most at risk and the approximate time to impact from associated

worst-case discharge releases. Stakeholders for these sensitive areas should be identified and their contact information included, and referenced, in **Section 3 Notifications and Alert Procedures**.

Companies with multiple facilities covered by the same Oil Spill Response Plan can provide the above information for groups of facilities in the same geographic region instead of individually. For situations where sensitive areas are not likely to be impacted in the first 24 hours following a spill, the applicable Area Contingency Plans can be referenced for locations of sensitive areas and their specific protection strategies and tactical plans.

Provide information on applicable sensitive area/shoreline protection techniques that could include descriptions, general logistical requirements, limitations, depictions of typical deployment configurations and a technique selection guide.

7.1.1 Sensitive Area Identification

This subsection should include the following information:

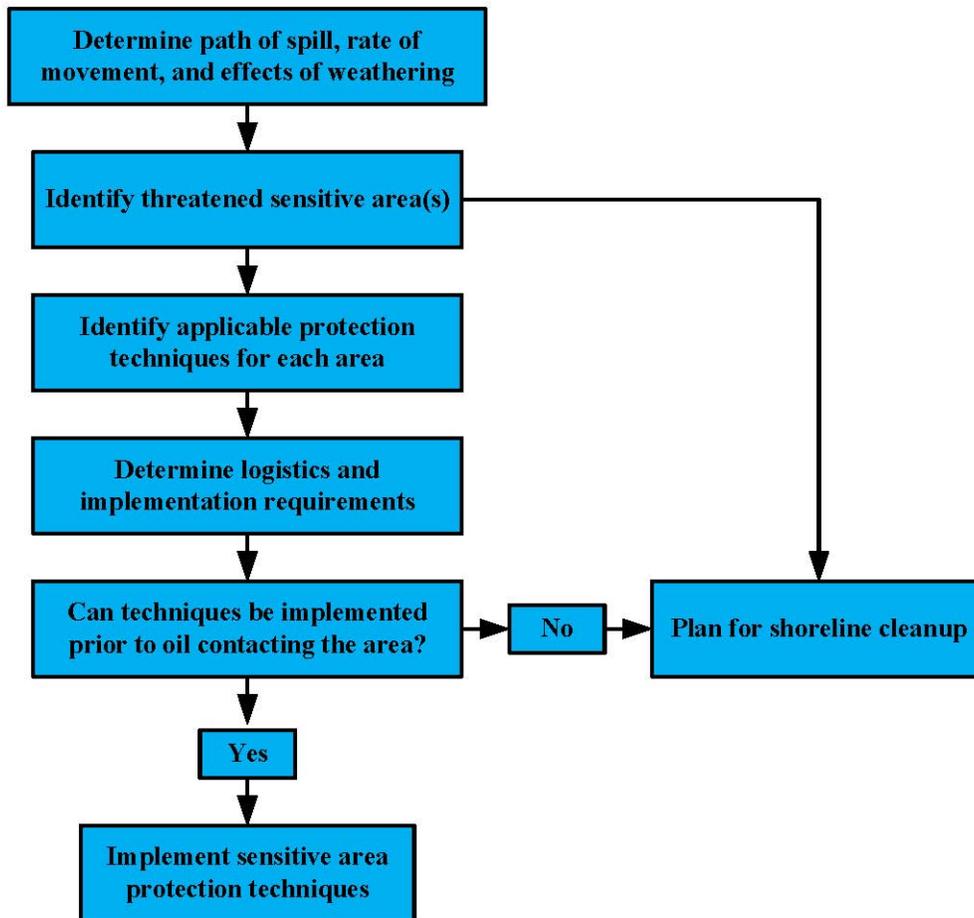
- Brief descriptions of the types of local environmental, socio-economic and cultural sensitivities that are known to be present in the potential impact area. This could be based on spill trajectory analyses.
- A list and/or map of the sensitive areas that could be impacted in the first 24 hrs.
- References should be made to Area Contingency Plans or other documents for information on protection of sensitive areas that could be impacted beyond the 24 hr time frame.

7.1.2 Protection Prioritization

Describe the process for prioritizing shorelines to be protected based on ecological sensitivity to oil, potential persistence of stranded oil, implementation time vs. time to impact, potential effectiveness, etc. and/or include prioritization decision diagram.

Example Table – Shoreline Protection Prioritization

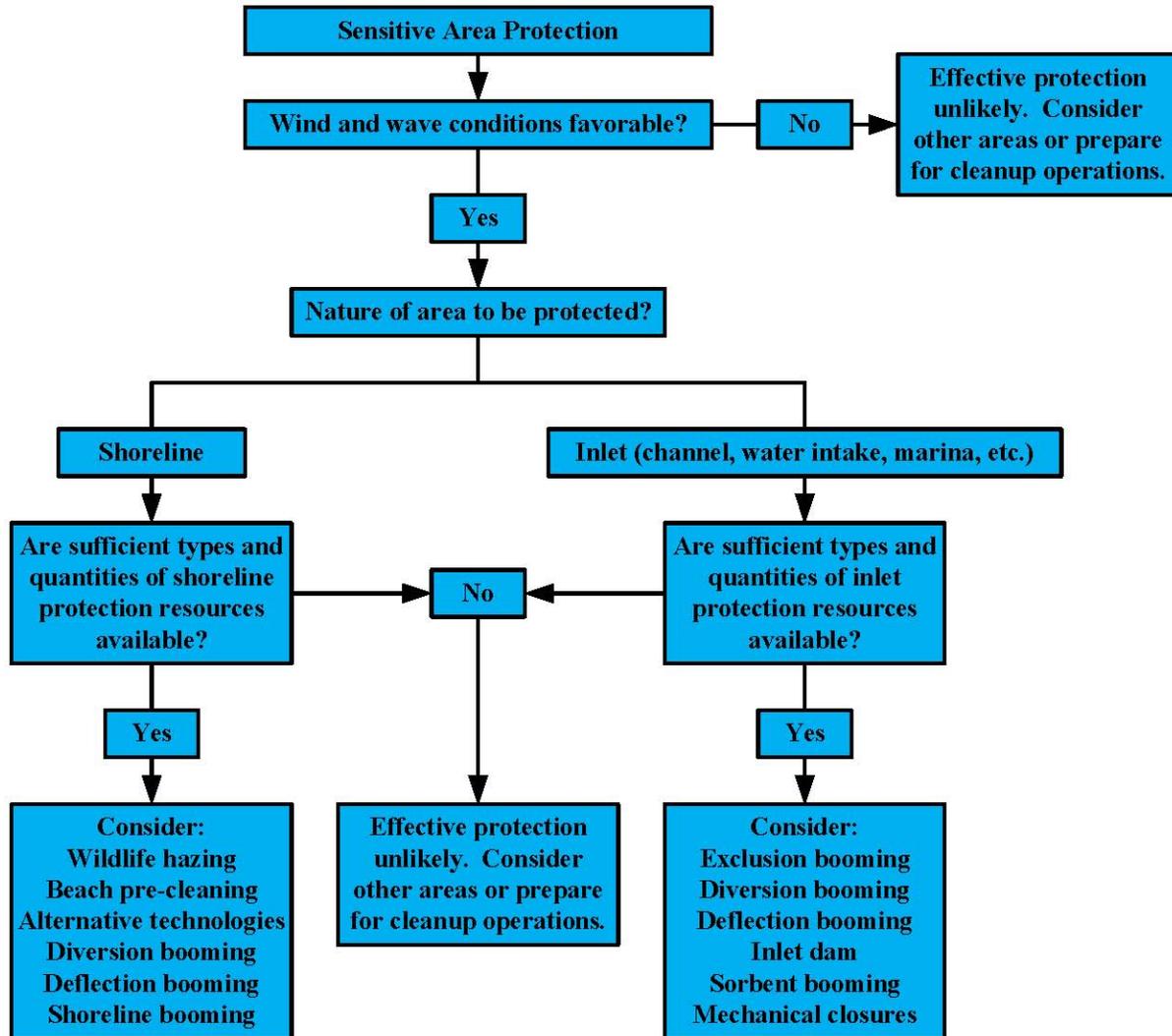
Reference #	Shoreline Type	Priority
1a	Exposed Wave-Cut Cliffs	Low
1b	Seawalls and Piers	
2	Exposed Wave-Cut Platforms	
3	Fine-Grained Sand Beaches	
4	Coarse-Grained Sand Beaches	Medium
5	Mixed Sand and Gravel (or Shell) Beaches	
6	Gravel Beaches and Riprap Structures	
7	Exposed Tidal Flats	
8	Sheltered Rocky Shores	High
9	Sheltered Tidal Flats	
10a	Fringing and Extensive Salt Marshes	
10b	Mangroves	



Sample Sensitive Area Protection Implementation Sequence

7.1.3 Protection Techniques

Briefly describe, in a tabular format if possible, the applicable sensitive area/shoreline protection techniques, primary logistical requirements, limitations and potential environmental effects of each. Also include illustrations of deployment configurations and technique selection decision diagrams where practical and when available.



Sample Sensitive Area Protection Technique Selection Guide

7.1.4 Tactical/Geographical Response Plans

Where practical, consider including site-specific tactical plans for protecting high priority sensitive areas that, based on trajectory analyses, could be impacted within 24 hours of a spill. The tactical plans should include detailed maps highlighting the locations of individual sensitive areas with an accompanying table describing each area including specific sensitivities, temporal considerations, protection strategies and logistical requirements for strategy implementation. Tactical plans for sensitive areas that could be impacted beyond 24 hours should be referenced in the applicable Area Contingency Plans.

7.2 Shoreline Cleanup

Describe the timing, shoreline assessment and cleanup approval process and identify the applicable techniques and associated logistical requirements, limitations and potential environmental impacts. Also reference policy and/or process for volunteer utilization if appropriate.

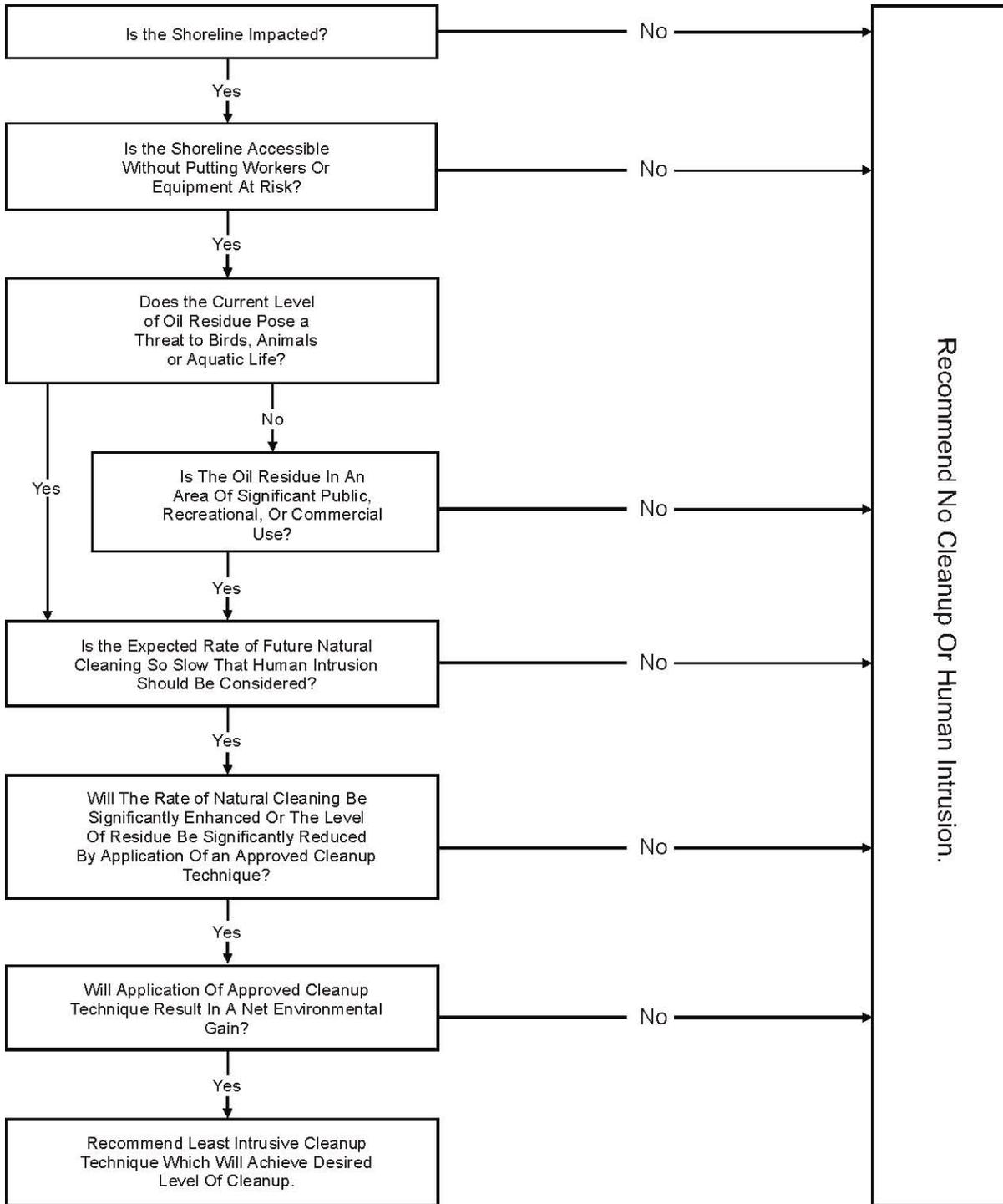
7.2.1 Shoreline Cleanup Assessment Team

Describe need for developing a Shoreline Cleanup Assessment Team program and staffing multiple teams in most spills involving shoreline impacts. Include a description of the process of reconnaissance, endpoint determination, shoreline surveys, treatment recommendations, post treatment assessment, etc. and how these processes support the Operations Section in planning for and implementing shoreline cleanup activities.

7.2.2 Techniques and Implementation

Provide information on the following:

- Implementation sequence – Include flow diagram
- Technique selection – Include determining factors and decision diagram and/or applicability matrix
- Technique descriptions – Briefly describe, in a tabular format if possible, the applicable cleanup techniques, primary logistical requirements, limitations and potential environmental effects of each. Also include illustrations of deployment configurations.
- Net Environmental Benefit Assessment/Analysis – Include description of this process and how it is used to determine the most effective and least environmentally damaging cleanup option.



Net Environmental Benefit Analysis (NEBA) Decision Guide

7.3 Shoreline Alternative Technologies

Briefly describe any applicable shoreline alternative technologies (beach cleaning solutions, solidifiers, repelling agents, bioremediation, etc.), general logistical requirements and limitations.

For each type of alternative technology under consideration for possible use, provide:

- General description, purpose and use
- Operational conditions for use
- Oil type compatibility and limitations
- Product information, including EPA approval status
- Method of application
- Product and application equipment locations and quantities
- Logistical requirements for deployment
- Deployment timeframes
- Application timeframes and duration of application
- Monitoring requirements
- Agency approval application and procedure
- Template for plan of use
- Safety considerations

8 Wildlife Protection and Rehabilitation

Section Purpose: To describe how wildlife will be protected, recovered and rehabilitated using appropriate response strategies. Identify contractors, organizations and/or government agencies that can provide or assist in those activities. Also include information on what permits, approvals or trustee involvement may be required to conduct wildlife hazing or capture operations.

8.1 Wildlife Protection

Describe general responsibilities/regulatory requirements and company policies for wildlife surveys, wildlife protection, and management of oiled wildlife.

8.1.1 Surveys

Describe need for aerial surveys to identify the presence of higher concentrations of birds and other wildlife that may be impacted by the spill. Also, reference Area Contingency Plans and other documents for information on historical spatial and temporal wildlife habitats, nesting and feeding areas, and haul-out areas.

8.1.2 Hazing

Describe hazing methods, authorizations required, and identify sources of equipment and personnel. Refer to **Section 4.0 Response Resources** for contact information on hazing equipment and service providers.

8.1.3 Rescue and Rehabilitation

Describe company policies and regulatory requirements for oiled wildlife rescue and rehabilitation. Identify contractors and/or agencies that can provide related services, and identify available resources. Refer to **Section 4.0 Response Resources** for their contact information.

9 Decontamination, Waste Management and Disposal

Section Purpose: To describe personnel and equipment decontamination procedures, waste management strategies, and disposal options. Describe how on-going decontamination of personnel and equipment will be conducted, including what resources are required. Describe how recovered oil and oily solids/liquids as well as non-oily solids and liquids will be collected, transported and temporarily stored during cleanup operations. Also describe available strategies and resources for treatment, final disposal or re-cycling of recovered oil and oily debris. Include a checklist and/or template for developing a waste management plan that is also scalable to a Tier 2 or 3 incident.

If overlooked in the early stages of a response, waste management can interrupt or slow down oil removal operations if no equipment or facilities are available to store, transfer or dispose of the recovered oil and water. Pre-planning for response waste management can also minimize waste production and avoid environmental stewardship issues.

9.1 Decontamination

Describe the general strategies for decontaminating personnel and equipment in the initial and subsequent stages of response operations. Include lists or a table of decontamination resources, including any third-party vendors available. Refer to Section 4.0 Response Resources for their contact information. Consider referencing operations manuals or decontamination procedures provided by Oil Spill Removal Organizations or other third-party contractors if available. Also refer to recommended decontamination safety procedures identified in Appendix A – Health and Safety.

9.2 Waste Management

Describe the various aspects of waste management including regulatory requirements, characterization, interim storage, segregation, accounting/tracking, decanting and treatment/recycling/disposal. Include a checklist for implementing the various components of waste management.

9.2.1 Regulatory Requirements/Characterization

Include a summary of applicable regulatory requirements, exemptions, and previous hazardous/non-hazardous determinations of each oil or refined product produced or handled.

9.2.2 Interim Storage and Segregation

Describe general strategies and available resources for interim storage of liquid and solid wastes both offshore and onshore. Include guidelines for segregating wastes to minimize quantities requiring special disposal.

9.2.3 Recovered Oil Accounting/Tracking

Provide guidelines and forms for accurate accounting and tracking of recovered oil.

9.2.4 Decanting

Describe decanting process and benefits and the procedure for obtaining regulatory approval (including any application forms).

9.2.5 Treatment

Identify the waste treatment options that will likely be applicable and include a list of properly permitted and approved facilities and transporters. Refer to **Section 4.0 Response Resources** for their contact information.

9.2.6 Waste Management Plan

Include template and/or guidance to facilitate preparation and implementation of a waste management plan that may be scaled to cover Tier 2 and 3 incidents.

9.3 Disposal

Describe general strategies for final disposal of recovered oil and oily debris. Include options available in the region, including:

- Recyclers
- Refineries
- Incinerators (disposal and waste to energy)
- Land farms
- Landfills
- Fuel blending facilities
- Waste handling specialists
- Waste water treatment facilities
- Waste disposal wells

Identify waste disposal, treatment or re-cycling facilities authorized to accept oil and oily waste and highlight those that have been vetted or approved by the Company as applicable.

10 Demobilization

Section Purpose: To describe general strategies and considerations for conducting demobilization operations. Include checklists and/or templates for developing demobilization plans. Also include guidelines on conducting a post incident debrief/critique.

Demobilization planning should be initiated early on in a response to facilitate rapid demobilization of resources that are no longer needed and which can significantly reduce response costs.

Conducting a post incident critique is the most effective way to capture lessons learned and, subsequently, revise the Oil Spill Response Plan accordingly.

10.1 Demobilization

Describe the process for demobilizing resources and identify key considerations, including safety and prioritization of resources with lower utilization, higher costs, and greater decontamination needs.

10.1.1 Check-Out Procedures

Develop procedures to check personnel and equipment out of the response, including the following considerations:

- Final decontamination inspection
- Turning-in small equipment and unused supplies
- Equipment inspection
- Final repairs
- Returning equipment to rightful owners
- Damage settlement process
- Final storage of purchased equipment and supplies
- Individual personnel check-out forms and process

10.2 Response Debrief/Critique

Describe the process and identify key considerations for conducting a post-incident debrief/critique including the preparation of an After Action Report. Forms or report formats should be provided if available. Guidelines for conducting incident investigations can also be included.

Appendix A – Health and Safety Guidelines

Purpose: When an oil spill occurs, the issue of health and safety, both for the public and oil spill responders, is the most important consideration. The purpose of this Appendix is provide additional information on the health and safety aspects of oil spill response. This Appendix provides the Spill Management Team and Spill Response Operating Team with supplemental and detailed information on safeguarding personnel during the emergency and post-emergency phases of the response. It also provides guidance for development of an incident-specific Site Safety and Health Plan.

A.1 Introduction

This Appendix supplements the health and safety information in Sections 2.1 and 2.2 of the Oil Spill Response Plan. It includes policy on health and safety for oil spill response workers, description of potential response safety management organization, hazard assessment guidelines, site control guidelines, description of the Site Safety and Health Plan, description of an air monitoring program, description of personal protective equipment, description of oil spill physical hazards, extreme temperature considerations, chemical dispersant safety considerations, night operations safety considerations, sanitation and personal hygiene considerations, decontamination guidelines, guidelines for an incident Emergency Response Plan, descriptions of controlled activities, site safety and health training suggestions, and safety incident reporting suggestions.

Some information provided in this Appendix is intended to meet regulatory requirements. Examples of such regulations are described below.

References

The primary guidance for this Appendix is the Hazardous Waste Operations and Emergency Response regulation (Title 29, Code of Federal Regulations, Part 1910.120).

Additional guidance includes Occupational Safety and Health Administration Publication 3172 – *Training Marine Oil Spill Response Workers Under OSHA's Hazardous Waste Operations and Emergency Response Standard*.

International guidance is found in the International Petroleum Industry Environmental Conservation Association report *Oil Spill Responder Safety Guide* provides oil spill safety guidelines.

Other references for oil spill response health and safety:

- U.S. NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities
- National Fire Protection Association RP 471 – Recommended Practice for Responding to Hazardous Material Incidents
- U.S. National Oil and Hazardous Substance Pollution Contingency Plan; 40 CFR Part 300
- Regional Area Contingency Plans

A.2 Policy on Response Health and Safety

Health and safety should be the cornerstone of all oil spill response operations. This section of the Appendix should specify that health and safety must never be compromised, regardless of the environmental imperative.

Guiding the development of this Appendix has been the principle that an effective and high-quality response **Health and Safety Program** must provide:

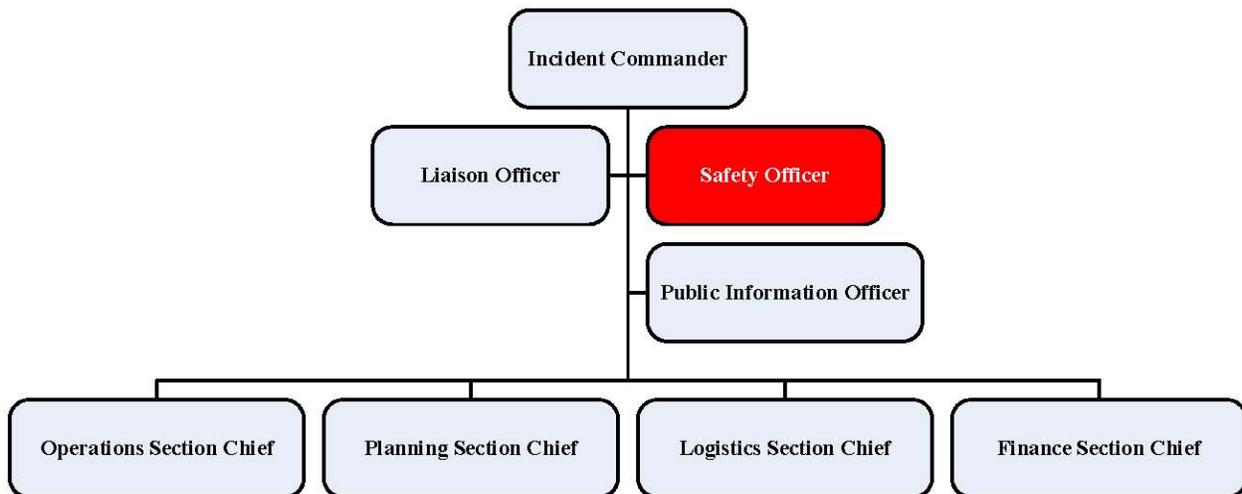
- A clear chain of command for safety and health activities,
- Accountability for safety and health performance,
- Well defined expectations regarding safety and health,
- Procedures for task and operational hazards/risk analysis,
- Comprehensive hazard prevention and control methods, and
- Recordkeeping requirements to track program progress.

A.3 Safety Management Organization

In this section, explain how safety is managed at each tier level of response. Initially, the Safety Officer may be the sole member of the team assigned with all safety management duties. If needed, the Safety Officer would be supplemented with safety specialists within the Spill Management Team as well as Field Safety Advisors. Safety is everyone's responsibility and in particular on-site operations leadership in the field.

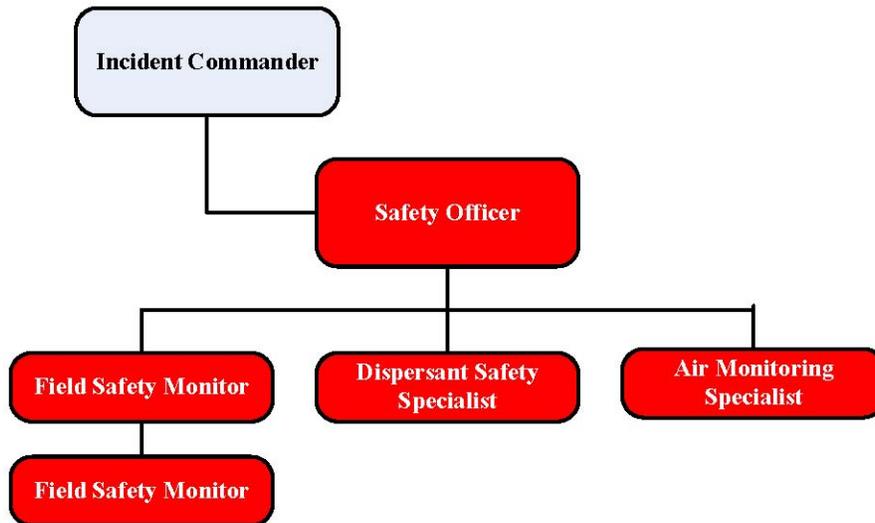
For moderate or major spills, the safety management organization may grow in size and complexity, including Assistant Safety Officers, field safety monitors, task-specific safety managers, air monitoring specialists, and Industrial Hygienist consultants. Specify in this section how the safety management organization will be staffed and organized for each tier level.

A.3.1 Tier One Safety Management Organization



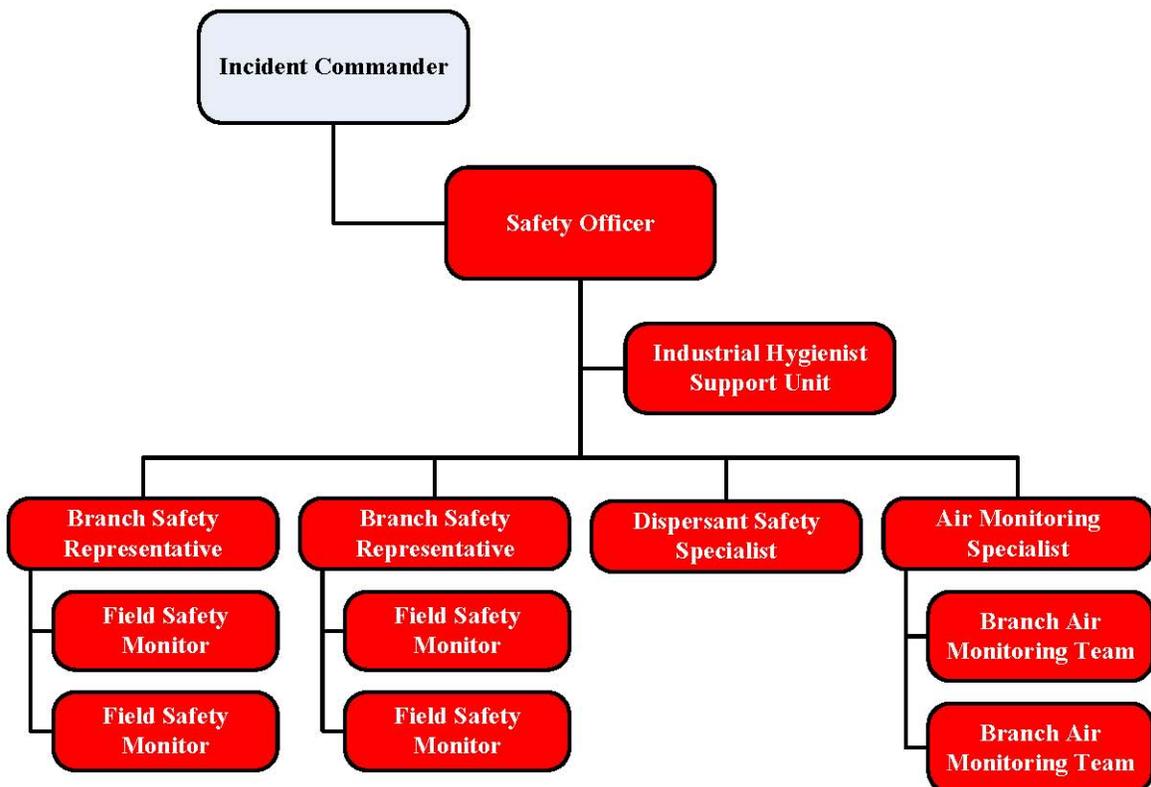
Example

A.3.2 Tier Two Safety Management Organization



Example

A.3.3 Tier Three Safety Management Organization



Example

A.4 Hazard Assessment

Hazard assessment is a methodology used to identify inherent or potential hazards which may be encountered in the work environment associated with oil spill response. This section should include a hazard assessment describing the following steps:

- Identification of an operation or job to be assessed,
- Break down of the job or operation into specific tasks,
- Identification of the hazards associated with each task, and
- Determination of the necessary controls for the hazards.

The overall objectives of the Hazard Assessment process are to provide guidance on:

- The development of site-specific procedures designed to effectively identify, assess, and control site hazards
- The identification of all response operations, jobs and related tasks that are hazardous due to their inherent characteristics
- The development of a system for assessing the safety and health hazards identified at the site
- The identification and use of engineering and administrative controls, and Personal Protective Equipment to minimize worker exposure to site hazards

A.4.1 Typical Oil Spill Hazards

Address how oil spill hazards are identified and what mitigation will be implemented. Reference the location of Material Safety Data Sheets for oil products handled at facilities. Common oil spill hazards include, but are not limited to:

- Flammability
- Inhalation Hazards
- Site Control
- Weather/temperature conditions
- Slips due to oil covered surfaces
- Skin exposure
- Mechanical injuries
- Exposure to plants, wildlife and insects (if near shore)
- Working over water
- Oxygen deficient atmospheres
- Confined spaces

A.4.2 Initial Site Characterization

Consider inserting a form that can be used by facility personnel or initial responders to describe the physical, environmental, meteorological, and product conditions and hazards at the site. This form would be used to begin development of a Site Safety Plan.

A.4.3 Groups at Risk

Provide analysis of the groups of people that may be at risk. This could include, but is not limited to:

- Facility personnel (on-scene)
- In-bound personnel (in transit)
- Transiting vessels and aircraft
- Initial Responders
- General Public

A.5 Site Control

Describe in this section how access to the response area is controlled to prevent non-responders from entering the response areas and to protect responders from excessive exposure to contaminants.

Oil spill site control can be categorized as follows:

- Exclusion Zone
- Contamination Reduction Corridor
- Support Zone
- Incident Facilities
- Security Perimeter

A.5.1 Notice to Mariners

Describe the process and contact information for requesting a general broadcast to mariners that will alert transiting vessels to the oil spill and its hazards. Specify who will request this broadcast, and which public agency is in charge of the broadcast.

A.5.2 Safety Zone

Describe how a safety zone can be established, if necessary, to exclude non-response personnel and vessels from the spill area. Describe what public agency would declare a safety zone, and how that zone would be enforced. Reference Section 3.1 for agency contact information.

A.5.3 Temporary Flight Restrictions

Describe the procedure for requesting restricted air space over the spill area. Specify who will request this restriction, and which public agency is in charge of enforcement. Reference Section 3.1 for agency contact information.

A.6 Site Safety Plan

Provide a template and guidance on completing the **Site Safety Plan**. For Tier I or II spills, this may be adequate. For larger spills, a more comprehensive Site Health and Safety Plan may be required. Include any site safety plan template and/or pre-formatted attachments that can be anticipated.

Typical Site Health and Safety Plan Format

Incident Name:	Operational Period:		Site Safety Plan ICS – 208
	From:		
	To:		
Site Health and Safety Plan			
Site Information			
Incident Location: Lat/Long:			
Command Post Location: Phone number:			
See attached map for control zones: Exclusion Zone, Contamination Reduction Zone, Support Zone			
Organization			
Incident Commander: Safety Officer: Liaison Officer: Human Resources Officer:		Operations Section Chief: Planning Section Chief: Logistics Section Chief: Finance Section Chief:	
Safety Observers:			
Weather Conditions			
Weather Hazards:	<input type="checkbox"/> Heat <input type="checkbox"/> Cold <input type="checkbox"/> Thunderstorms <input type="checkbox"/> High wind	<input type="checkbox"/> High waves <input type="checkbox"/> Sunburn <input type="checkbox"/> Tidal Change <input type="checkbox"/> See attached weather forecast.	
<i>Heat stress monitoring and work-rest schedule is required where work is performed in elevated temperatures.</i>			

Site Hazards	
List hazardous materials present:	
Attach MSDS for each hazardous material.	
Air monitoring conducted for: <input type="checkbox"/> Lower Explosive Limit <input type="checkbox"/> Oxygen <input type="checkbox"/> Benzene <input type="checkbox"/> Hydrogen Sulfide <input type="checkbox"/> Carbon Monoxide <input type="checkbox"/> Total Hydrocarbons <input type="checkbox"/> Other: _____ List any other Site Hazards:	Respirators required: <input type="checkbox"/> Air Purifying, Cartridge type _____ <input type="checkbox"/> Air Supplied Locations Required:
Personal Protective Equipment	
Required PERSONAL PROTECTIVE EQUIPMENT for Exclusion/Contamination Reduction Zone: <input type="checkbox"/> Air Supplied Respirator <input type="checkbox"/> Air Purifying Respirator <input type="checkbox"/> Chemical Protective Clothing <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Safety Goggles <input type="checkbox"/> Face Shield <input type="checkbox"/> Hard Hat <input type="checkbox"/> Steel Toed Boots <input type="checkbox"/> Other _____	Required PERSONAL PROTECTIVE EQUIPMENT for Support Zone: <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Coveralls <input type="checkbox"/> Hard Hat <input type="checkbox"/> Steel Toed Boots <input type="checkbox"/> Other _____
Decontamination	
List decontamination procedures:	
Emergency Medical Procedures	
List procedures for first aid and medical evacuation (or attach Medical Plan):	
Evacuation or escape alarm description:	
Emergency escape route and muster area:	

Training and Safety Briefing		
1. All personnel entering a control zone (exclusion, contamination reduction, and support zones) shall receive a site orientation and shall be familiar with the contents of this Site Safety Plan. 2. Safety Briefings will be held daily and prior to beginning a new work operation.		
Certification		
This Site Safety Plan is effective as of _____ for the operational period of _____. Safety Officer signature: Incident Commander signature:		

A.6.1 Site Health and Safety Plan

For Tier 3 spills, a comprehensive **Site Health and Safety Plan** may be required. The goal would be to protect workers involved in cleanup operations from all associate hazards in compliance with applicable health and safety regulations and best practices.

A.6.2 Plan Content

The Site Health and Safety Plan should be consistent with applicable regulations, such as OSHA 29 CFR 1910.120. Define/discuss required portions of plan, including but not limited to:

- Identification of hazards common to all operations involved in the response (initial site characterization)
- Instructions on respiratory protection and Reference to the Air Monitoring Program
- Emergency safety and response plan—measures to be taken in the event of an emergency (describe possible emergencies), emergency response phase
- Facility or area evacuation procedures
- Material Safety Data Sheet (MSDS) availability and location for each hazardous substance for associated operations
- Site map including work zones, location of hazards, security perimeter, places of refuge, decontamination line, evacuation routes, assembly point, etc. for an emergency
- Site safety plan – post-emergency phase
- Site map – post-emergency phase map of site and hazards
- Exposure monitoring plan – provides plan of monitoring operations

- Personal protective equipment – list of potential Personal protective equipment to be used in operations per regulations and company guidance
- Decontamination – provide information how workers can avoid contamination as well as how to be decontaminated
- Site safety enforcement log – used to reiterate safety during an incident
- Worker acknowledgement form

A.7 Air Monitoring

In this section, describe why air monitoring is a critical component of the response process and the basic guidelines to ensure it is safe to respond. Provide an overview, definitions and company philosophy on the air monitoring program for the response.

Air monitoring shall be used to identify and quantify airborne levels of hazardous substances and safety and health hazards in order to determine the appropriate level of employee protection needed on site. Upon initial entry, representative air monitoring shall be conducted to identify any IDLH condition, exposure over permissible exposure limits or published exposure levels, or other dangerous condition such as the presence of flammable atmospheres, oxygen-deficient environments.

Airborne Hazards

Define the inhalation hazards and explosive range of oil products handled at facilities covered under this Oil Spill Response Plan.

Example Table

Inhalation Hazards	Exposure Limit (PEL or TLV)
Benzene	1 PPM
Hydrogen Sulfide	10 PPM
Volatile Organic Compounds (VOC)	300 PPM
Carbon Monoxide (burning)	10 PPM
Polynuclear aromatic hydrocarbons	35 PPM
Sulfur Dioxide	2 PPM
Flammability	Value
Flash Point	100 degrees F
Lower Explosive Limit	8%
Upper Explosive Limit	15%

Initial Responders

Describe how initial responders perform air monitoring for initial site entry based on their pre-existing spill response operations manuals or other references.

Air Monitoring Program Elements

The air monitoring component of the site-specific Site Health and Safety Plan shall be based on all chemical, physical and other hazards identified in the site characterization. At a minimum, it shall address:

- Sampling strategy and schedule for personal monitoring (breathing zone), air monitoring (level of protection) and environmental sampling (offsite migration),
- Instrumentation and equipment to be used,
- Calibration and maintenance of instruments and equipment, and
- QA/QC procedures and analytical methods.

Describe each element of the primary air sampling and monitoring activities in oil spill response, including:

- Detection of flammable atmospheres
- Identification of airborne hazards
- Exposure monitoring for responders
- Smoke plume monitoring (in-situ burning)
- Public exposure monitoring
- Delineation of air impact zone

The Air Monitoring Program may include some or all of the following criteria:

- Air monitoring Project Leader – Industrial Hygienist or equivalent
- Identification of potential air quality hazards
- Selection of detection devices and equipment
- Training for field sample technicians
- Equipment calibration
- Sampling locations
- Sampling frequencies
- Reporting parameters
- Exposure reporting and alert system

A.8 Personal Protective Equipment

Provide a discussion of common Personal Protective Equipment for oil spills. Describe Personal Protective Equipment selection criteria based on product hazards and environmental conditions.

Ensure that Personal Protective Equipment selection and use is consistent with regulatory requirements, such as OSHA, as well as industry recommendations, such as NIOSH.

Careful selection and use of Personal Protective Equipment is essential to protect the health and safety of workers. The Personal Protective Equipment program contained in the site-specific Health and Safety Plan should consider addressing:

- Personal Protective Equipment selection based on site hazards
- Personal Protective Equipment use and limitations
- Work mission duration
- Maintenance and storage
- Decontamination and disposal
- Training and proper fitting
- Donning and doffing procedures
- Inspection procedures prior to, during, and after use
- Effectiveness evaluation procedures
- Limitations due to temperature extremes, and other appropriate medical and physical concerns

Personal protective equipment is divided into two broad categories; respiratory protective equipment and personal protective clothing. Both of these categories are incorporated into the four levels of protection (Levels A, B, C, and D), based on the potential severity of the hazard. Modifications to these levels should be made under the direction of the Safety Officer in consultation with a qualified industrial hygienist and/or health physicist. Such modifications are routinely employed during site work activity to maximize efficiency and to meet site-specific needs without compromising worker safety and health.

Levels of Personal Protective Equipment

The specific levels of Personal Protective Equipment and necessary components for each level have been divided into four categories according to the degree of protection afforded. General guidelines for use are:

- Level A** Worn when the highest level of respiratory, skin, and eye protection is needed.
- Level B** Worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is needed.
- Level C** Worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.
- Level D** Refers to work conducted without respiratory protection. This level should be used only when the atmosphere contains no known or suspected contaminants and oxygen concentrations are between 19.5% and 23%.

A.9 Physical Hazards (Optional)

Include in this section a description of the physical hazards that oil spill responders may face, and how to mitigate the risk of physical hazards.

Physical hazards include, but are not limited to:

- Slips, trips and falls
- Material handling
- Mechanical equipment
- Vehicle accidents
- Large equipment
- Rolling decks on vessels
- Crane operations
- Boat operations
- Dropped objects
- Lifting
- Noise
- Pressurized hoses
- Pressure washing
- Trenching/excavating
- Drowning

Provide instructions on mitigating physical hazards, such as:

- Engineering controls
- Work practice controls
- Non-slip mats or flooring
- Foot protection
- Ear protection
- Eye protection
- Face protection
- Hard hats

- Personal flotation
- Material handling guidelines

A.10 Extreme Temperatures (Optional)

Extremes of temperature, humidity and precipitation all place considerable strain on human performance.

Include in this section a description of the regional temperature and climate characteristics for each season.

Include in this section a description of common temperature-related health hazards.

Heat-related Conditions	Cold-related Conditions
<ul style="list-style-type: none"> • Heat rash • Heat Cramps • Heat Exhaustion • Heat Stroke 	<ul style="list-style-type: none"> • Hypothermia • Frostbite

Describe the control measures to minimize temperature-related illness or injury. These may include:

- Constant weather monitoring
- Minimizing heavy work at peak temperature periods
- Selection of temperature-appropriate Personal Protective Equipment
- Recovery shelters
- Work/rest periods
- Use of equipment vs. personnel labor
- Worker health monitoring
- Worker training on temperature disorders
- Progressive acclimatization period for workers
- Closely monitor and modify/adjust work/rest worker schedules
- Maintain proper worker body fluids in both cold and hot weather

A.10.1 Medical Monitoring

Describe a worker medical monitoring program will help prevent temperature-related disorders by identifying the effects of the work period on the workers.

A.11 Chemical Dispersant Safety (Optional)

If dispersants are contemplated for use, include a discussion of their chemical and physical properties, and health and safety hazards.

Insert a MSDS for each dispersant that may be used.

Provide guidance on proper Personal Protective Equipment selection for each chemical dispersant, including recommendations for:

- Inhalation protection and respirator selection
- Skin protection
- Face protection

A.12 Night Operations

Night operations present particular risks for workers. In this section, describe the types of operations that may be conducted at night, and what unique safety considerations apply to those operations.

If night operations are allowed, each work task must have specific hazard analysis and risk mitigation procedures.

Typical hazards of working at night:

- Inadequate lighting
- Worker fatigue
- Personnel accountability
- Longer emergency service timeframes
- Inadequate supervision

Unless adequate lighting can be provided to ensure safe and secure operations and an acceptable level of operational efficiency can be guaranteed, night clean-up operations should be avoided. It is difficult to see oil in low light conditions and the risk of slips, trips or falls increases dramatically.

Worker fatigue will increase through night working and the operational benefits of this work need to be assessed.

A.13 Sanitation and Personal Hygiene (Optional)

Adequate sanitation and personal hygiene facilities must be provided in sufficient quantities to meet worker demand at all work locations. Include in this section a discussion of how sanitation and hygiene will be addressed at all possible work sites, camps, staging areas, vessels and air bases.

Sanitation and personal hygiene includes consideration of the following resources:

- Potable water
- Food and water containers
- Waste water treatment/disposal
- Toilet facilities

- Food handling
- Sleeping quarters
- Washing and showering facilities
- Change rooms

A.14 Decontamination

A decontamination procedure shall be developed, communicated to employees and implemented before any employees or equipment may enter areas on site where potential for exposure to hazardous substances exists.

Generally, decontamination should be performed in conformance with applicable regulations, such as OSHA 29 CFR 1910.120.

Decontamination involves physically removing contaminants from personnel and equipment and/or chemically converting them into innocuous substances. Proper decontamination procedures for oil spill response minimizes worker exposure to oil and limits the secondary contamination and spread of oil.

The overall objectives of this section are to:

- Determine and implement the decontamination methods for personnel and equipment that are effective for the specific oils present,
- Ensure the decontamination procedure itself does not pose any additional safety or health hazards,
- Provide pertinent information on the locations and layouts of decontamination stations and equipment,
- Establish procedures for the collection, storage and disposal of clothing and equipment that has not been completely decontaminated, and
- Provide for the periodic evaluation of the plan against the existing site hazards.

A.14.1 Personnel and Equipment Decontamination

Include in this section a discussion of the possible decontamination methods and necessary equipment and supplies.

The decontamination plan for personnel and equipment is based on the assumption that all personnel and equipment leaving the Exclusion Zone (area of potential contamination) are grossly contaminated. The decontamination elements contained in the site-specific Site Health and Safety Plan includes:

- Training of decontamination workers
- Location and layout of decontamination stations and areas
- Decontamination methods
- Required decontamination equipment

- Standard Operating Procedures to minimize worker contact with contaminants during decontamination
- Standard Operating Procedures for decontamination line personnel
- Procedures for collection, storage and disposal of clothing, equipment and any other materials that have not been completely decontaminated

Decontamination occurs in an area designated as the Contamination Reduction Corridor (CRC). The CRC controls access into and out of the Exclusion Zone and confines personnel decontamination activities to a limited area. A separate CRC should be established for equipment, containment boom, skimmers and vessels.

Typically in oil spill response, worker decontamination involves “dry” decontamination, or simply removing oiled Personal Protective Equipment for disposal. Protective coveralls and contaminated gloves are seldom washed and re-used. Workers shower at the end of the work period. Describe this decontamination procedure and the resources required.

A.14.2 Vessel Decontamination

In oil spill response, vessel decontamination is a unique challenge. Generally describe how large vessels will likely be decontaminated on the water using appropriate hull cleaning techniques and how smaller vessels may be dry-docked or hauled out for decontamination, including what resources would be required. Special hull cleaning techniques may be needed if recreational or fishing boats with wood or fiberglass hulls are contaminated.

A.14.3 Emergency Decontamination

Describe a method for emergency decontamination for medical emergencies at each work site.

A.15 Emergency Response Plan (Optional)

For tier two and tier three spills where the number of workers and work sites is significant, an incident-specific **Emergency Response Plan** may be required to address accidents and medical emergencies that may occur during the response.

If necessary, an Emergency Response Plan for the incident shall be developed and implemented to handle anticipated emergencies prior to the commencement of oil spill removal operations.

The Emergency Response Plan for site emergencies may contain the following:

- Pre-emergency planning
- Personnel roles, lines of authority, training, and communication
- Emergency recognition and prevention
- Safe distances and places of refuge
- Site security and control
- Evacuation routes and procedures

- Decontamination procedures which are not covered by the site safety and health plan
- Emergency medical treatment and first aid
- Emergency alerting and response procedures
- Critique of response and follow-up
- Personal Protective Equipment and emergency equipment
- Procedures for handling emergency incidents
- Site topography, layout, and prevailing weather conditions
- Procedures for reporting incidents to local, state, and federal governmental agencies

The emergency response plan may be a separate section of the Site Safety and Health Plan.

The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

An employee alarm system shall be installed to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to speed communication, and to begin emergency procedures.

A.16 Controlled Activities

Certain activities in the response may require additional permits or specific safety and control procedures. In this section, specify controlled activities and describe the permit or task safety procedure.

Controlled activities may include, but are not limited to:

- Hot Work
- Confined Space
- Working at Heights
- Aircraft refueling
- Crane and material handling
- Waste disposal
- Trenching and excavating
- Drum handling

A.17 Site Safety and Health Training (Optional)

Generally, oil spill responders should receive training adequate to prepare them for all anticipated site safety control procedures. This section should describe the incident-specific training requirements for facility personnel, initial responders, Incident Commanders and key response managers, oil spill response personnel and specialists.

In the U.S., training for oil spill response is described in OSHA regulation 29 CFR 1910.120(q)(6). Further guidance for oil spill response training requirements are contained in OSHA document 3172 – *Training Marine Oil Spill Workers Under OSHA’s Hazardous Waste Operations and Emergency Response Standard*.

A.18 Safety Incident Reporting and Corrective Action (Optional)

Response workers should be provided with clear reporting instructions to communicate safety incidents, near-misses, unsafe conditions or safety improvements. This section should describe how safety reporting will be established, communicated and implemented throughout the response organization. This program should especially target site workers directly exposed to hazards.

This section should also describe how safety reports are reviewed, analyzed and how corrective action may be recommended and implemented.

Include safety incident report forms, and other administrative tools as necessary.

Include a matrix for summarizing safety incidents and near-miss reporting.

Appendix B – Facility Descriptions

Purpose: This Appendix provides appropriate facility-related information needed for responders immediately in the event of a release. This includes key information such as location, worst-case discharge(s), throughput, storage capacities, pipeline information, nearby facilities, type(s) and characteristics of oils produced or handled and area maps.

B.1 Introduction

This Appendix contains select information about facilities covered by this Oil Spill Response Plan that will be needed to initiate the response. This information is also useful to the Spill Management Team, the Spill Response Operating Team, and plan reviewers during training and plan approval.

B.2 Offshore Production Facilities

Describe the facilities that are covered under this Oil Spill Response Plan. Describe major assets such as high volume production platforms in more detail, including drawings, photographs and main characteristics.

If this plan covers multiple smaller facilities, use tables to describe each facility, its location, and its characteristics. Discussion, figures or tables describing covered facilities should include the following information as appropriate or required:

- Facility name
- Facility type (Platform, pipeline, exploratory well, subsea well, caisson, etc.)
- Location (Latitude/Longitude)
- Facility identification numbers
- Area/Block
- Water depth
- Distance to shore
- Oil types handled, and their API Gravity
- Worst-case discharge (volume or rating)
- Highest capacity well
- Oil storage capacity
- Throughput volume
- Manning status

An example table that could be used to display the above information is provided as follows.

Example Facility Information Table

Eugene Island Block 55, Fixed Production Platform		
<p>OCS – 5555 Facility Phone: 555-555-5555 Fax: 555-555-5555 Radio: VHF FM Channel 88 Operators Emergency Response Center: 555-555-5555</p>		
<p>Latitude: 29° 22' 11" Longitude: 91° 30' 28"</p>	<p>Distance to Shore: 3 statute miles Water Depth: 10 ft.</p>	<p>Travel Time: 25 minutes by helicopter 2.5 hours by boat</p>
<p>Structure Design: Cement 4 pile, 1 deck</p>	<p>Normal Manning: 3 Operators Maximum Berthing: 13</p>	<p>Crew Change: Tuesdays, by boat.</p>
<p>Oil Storage Max Volume: Crude Oil 2,500 bbls Condensate 6,000 bbls Number of wells: 6 satellite wells</p>	<p>Total Daily Production Volume: Oil 100 bbls Gas 1000 mcf Condensate...100 bbls</p>	<p>Facility Pollution Equipment: Over-pack drum Sorbent materials</p>
<p>Worst-Case Discharge Volume: 2,750 bbls crude oil Highest Flowing Well: 50 bbls per day</p>	<p>Crude Oil Characteristics: API 45, Pour Point 32 degrees F</p>	<p>Distance to Nearest City: 9 statute miles to Fourchon, LA</p>
<p>Export Pipelines: 10" & 8" Operator: Acme Pipeline Operator Phone: 555-555-5555</p>	<p>Lifesaving Equipment: 2 – 12 man life rafts</p>	<p>Firefighting Equipment: 13 saltwater reels placed throughout platform and dry chemical.</p>
	<p>Maximum Crane Capacity: 1,000 lbs. stiff-leg</p>	<p>Shorebase: Berwick, LA 70342 555-555-5555</p>

B.3 Exploratory Wells

For exploratory wells, consider including a description of the well location, water depth, type of drilling rig, and general characteristics of the well and surrounding environment. Alternatively, reference the location of documents where this information is readily available to the Spill Management Team.

B.4 Pipelines

Describe all pipelines covered by this Oil Spill Response Plan. Discuss their locations, size, control room location, types of oil transported, and volumes. For major pipelines (right-of-way or DOT), provide the following information in a figure or table format:

- Identification name/number/segment number/ROW number
- Starting/ending location (latitude/longitude)
- Jurisdictional boundary crossings
- Length
- Size
- Oil type, including API gravity
- Leak detection system type
- Throughput volume
- Platform crossings
- Worst-case discharge

An example of a table that could be used to display the above information is provided below.

Sample Pipeline Information Table

Pipeline Name, Identification Numbers					
Oil Type and Characteristics:					
Origination Lat/Long	End Point Lat/Long	Jurisdiction	Length	Outer Diameter	Inner Diameter
Static Volume	Throughput	Pressure	Leak Detection System	Closest Distance to Shore	Platform Crossings

B.5 Adjacent Facilities

Consideration should be given to listing nearby operations/assets in potentially affected areas (such as adjacent/offset facilities within 5 miles or other specified radius) and/or a means of contact (mass notification system, radio, telephone, etc.). The intent is to provide a means of quickly identifying and notifying, primarily for safety reasons, facilities that could be impacted within the first few hours of a release. Information that should be provided includes:

- Type of facility/asset
- Operator name
- Contact Information (or means of contact)
- Area/Block/Lease Number/Facility ID
- Latitude/Longitude
- Distance and Direction

If there are too many adjacent facilities to maintain in this plan, provide a reference to an information source where this information can be quickly obtained.

B.6 Hydrocarbon Types and Characteristics

For the types of oils handled at facilities/pipelines covered under this Oil Spill Response Plan, provide as much information on their individual characteristics as possible, including their chemical and physical properties.

Consider including a figure or table that provides some or all of the following information for each type of oil covered under this Oil Spill Response Plan:

- Oil Type Name (crude, condensate, diesel, etc.)
- API or Specific Gravity
- Pour Point
- Wax Content
- Flash Point
- LEL and UEL
- Viscosity
- Hazardous components by percentage (H₂S, Benzene, Toluene, etc.)

B.7 Maps

Provide general overview maps that indicate production facility locations, including their relationship to land, other facilities and shipping lanes. Provide greater detail for facilities closer to shore, to include nearby Counties, Parishes, Public Areas and nearby inhabited areas. If this information is already provided on sensitive area maps (included or referenced in the plan) then those maps could be referenced here.

For pipelines, provide overview of entire pipeline route, and smaller scale maps indicating locations of control valves and compressor stations.

Other useful map data that should be considered for inclusion includes:

- Area/Block grids
- Company office and shorebase locations
- Roads to shorebase and staging area locations
- Hospital locations
- Major search and rescue assets
- Water depth contours
- Jurisdictional boundaries

B.8 Areas of Special Interest

If necessary, and if not included in available sensitive area information sources, describe areas of special interest or protected areas within the area covered by the Oil Spill Response Plan and provide a discussion of each. This includes, but is not limited to:

- National wildlife refuges, wildlife management areas
- State parks and reserves
- Deepwater ports
- Anchorages
- Shipping lanes
- Military bases and operating areas
- High volume ports
- Economically sensitive areas

Appendix C – Communications

Purpose: To demonstrate that adequate systems are in place to ensure effective communication between field assets, responders, Incident Command Post(s) and Company Emergency Operations Centers (if any). Information that should be provided includes descriptions of the primary and secondary communications systems for the various components of the spill management organization as well as phone and fax numbers and radio frequencies. This Appendix should also describe the communications and IT systems that will enable effective communications between all response management personnel, response agencies, and involved stakeholders.

C.1 Introduction

In offshore oil spills, responders cover a wide geographic region that typically utilizes a combination of ground, air and marine transportation systems. Effective response requires adequate communications between all response management personnel, operational assets and response teams in the field. This appendix describes the communications and IT systems that will enable effective communications between all field assets, response management personnel, response agencies, and involved stakeholders.

With advances in computer technology and telecommunications systems, the expectations for faster flow of communications and sharing of response data have risen to high levels. Response management teams must ensure they can utilize technology to enhance communications and the flow and dissemination of information in oil spill response.

C.2 Company-Specific Communications

Provide an overview of company-specific communication technologies and IT systems available to the Spill and Crisis Management Teams, as applicable.

For communications systems, consider providing relatively detailed information in subsections, or figures and tables, on the following communications capabilities.

- Phone systems available in Command Posts and other pre-designated incident facilities Dedicated emergency phone numbers (one-call numbers) for facilities and Incident Command Post/Emergency Operations Center
- Mass notification systems available to the team (Mir-3, Everbridge, SendWordNow, Dilologic, etc.)
- Radio and phone communications systems available on offshore manned facilities covered by the plan
- Radio frequencies intended to be used in a response including those that may be dedicated to Command, Operations, Logistics, Planning, etc.
- Conference phone systems
- Video conference systems
- Locations and access to satellite phones
- Mobile phones assigned to Spill Management Team members
- Access to government-sponsored priority communications systems,

- Crisis call centers or phone banks that can be activated for high volumes of calls
- Vessel radio equipment
- Aircraft radio equipment

For IT systems, provide detailed information in subsections, or figures and tables, on the following topics.

- Computers available to Spill Management Team members
- Electronic displays available in Command Posts
- Printing, scanning and copying devices and services
- Large-scale printing equipment or services
- Web-based meeting services
- Emergency or incident web sites; public and internal
- Common Operating Picture IT support systems
- Real-time video surveillance displays
- Internet access services at Command Posts
- Electronic white boards
- Backup power systems for Command Posts

C.3 Communications Plan

Describe the role of the Logistics Section in preparing an Incident IT and Communications Plan. The Incident IT and Communications Plan contents should be identified including:

- Plans for the effective use of incident IT and communications equipment
- Installing and testing of IT/communications equipment
- Distribution of IT/communications equipment to incident personnel
- Maintenance and repair of IT/communications equipment
- Availability of interoperable offshore IT/communications systems

C.4 Communications Plan

Explain the purpose and importance of the Communications Plan for the incident. Describe who is responsible for developing and updating this document. If possible, consider pre-populating this list with known information.

C.5 Radio Frequencies

Provide a discussion of the aircraft, vessel and shore radio frequencies that will be used in the response. Provide a figure or table that provides the following information:

Asset/Organization	Channel	Band	Frequency	Application	Description
All Vessels	6	VHF	156.3	Ship-to-ship	Ship-to-Ship Safety and Navigation

Example Table

C.6 Communication Limitations

Discuss any potential limitations to effective telecommunication or radio capabilities in the area covered by the Oil Spill Response Plan. Limitations could include:

- Distance from shore
- Weather
- Bandwidth
- Non-standard or single purpose communications systems

Appendix D – Documentation

Purpose: In any incident response it is imperative that response actions be adequately documented to support on-going operations, provide a legal record of the response, and facilitate capturing lessons learned. This Appendix should provide a description of the documentation policies, process and forms to be used during the incident response.

D.1 Introduction

Describe the requirements and processes for documentation of oil spill response activities. This includes such subjects as:

- Notification Forms, ICS Forms and other documentation tools
- Record-freezing requirements
- Unit logs
- Individual team member notes and records
- Overall development of the written Incident Action Plan
- Handling photographs and video
- Capturing text and e-mails related to the response
- Creating an Incident File
- Record retention

D.2 Purpose of Response Documentation

Proper documentation of oil spill response is critical for on-going operations and post-incident analysis. Proper documentation is important for the following reasons:

- Check-in/out documentation provides for safety and accountability of personnel
- Individual documentation forms are needed for immediate reference
- Handover to relief or alternates is more complete with up-to-date documentation
- Creates common “picture” of the response
- Proper documentation is a tool for communication with external organizations
- Allows for creation of an effective Incident Action Plan
- Creates historical record of the response
- Supports audits of invoices and cost analysis
- Documentation captures critical decisions and the factors at the time that supported those decisions
- Supports legal challenges
- Documentation provides a basis for critiquing the response

D.3 Types of Response Documentation

Briefly describe the types of response documentation, sources of those documents, who is responsible and how those documents are handled.

Types of response documentation could include:

- Hand-written notes
- ICS forms
- Audio recordings
- Radio communication logs
- Conversation/Action Records
- Filled-in Response Books, Quick Guides, Checklists
- Photographs, Videos
- Oil sampling results
- Statements, Press Releases
- Written Reports, Repair Plans, Salvage Plans
- E-mails
- Text Messages
- Meeting minutes
- Invoices and cost tracking information

A figure or table could be used for this purpose.

Example Table – Response Documentation

Document Type	Purpose	Source	Route To
Initial Notification Form	Capture initial incident information.	Asset Supervisor	QI, Documentation Unit
ICS 201	Initial Incident Action Plan	Planning Section Chief	Situation Unit
ICS 214	Unit Log	Response Managers	Documentation Unit
ICS 211	Check-in/out	Check-in Stations	Resources Unit
Photographs	Surveillance, Operating Picture	Field Operations, Surveillance Unit	Documentation Unit
E-mails	Electronic communications	All personnel	Incident_name@company.com
Text Messages	Informal Communications	All personnel	Documentation Unit
Trajectories	Model of spill movement	X Trajectory Company	Situation Unit, Operations Section Chief
Privileged Records	Records not discoverable to external organizations	All applicable personnel	Legal Officer

D.4 Documentation Policies, Processes and Procedures

D.4.1 Record-Freezing

To support post-incident investigations and analysis, certain records related to the source of the spill may need to be captured and preserved. Provide a discussion on what those records may be, who has them, how they can be captured, and where they will be preserved. Such records may include operational logs, maintenance logs, training records, computer files, text messages and e-mails, for example.

D.4.2 Procedures

Include a discussion of company-specific procedures to document management, operational and support aspects of oil spill response activity.

This may include:

- Roles and responsibilities of team member positions who play a key role in documentation, such as the Documentation Unit, Resources Unit, and Situation Unit
- Locations of printed and electronic forms
- Discussion of quick guides or response books that may be used by team members
- Importance of properly filled out forms, including author, date/time stamp, revision number, etc.
- Use of badges and/or electronic check-in/out tools
- Identification of personnel responsible for gathering and processing response documentation
- Identification of third-party documentation support vendors (contact information should be provided and referenced in Section 4.1)

In order to document the operational and support aspects of oil spill response actions, each member of the Spill Management Team will maintain written records of their activities. Considerable care should be taken to ensure that these forms are filled out accurately and maintained responsibly for future reference.

D.4.3 Forms

Forms, including Notification Forms, Incident Command System Forms, Individual Logs, Conversation/Action Records, and Agency Report Forms may be included in this section, or their location referenced in a separate manual or file.

If the team uses log books, quick guides, or response books or other non-standard response documentation tools, specify where these are located and how they are routed in the documentation process.

If electronic forms are used, specify where they are stored, how to access them, and how to preserve each document at the end of each Operational Period.

If response documentation software is used, specify the software name, source, any third-party support required, help contacts, and any other resources needed to use effectively. Specify who is trained on use of the software in a figure or table.

Typical Forms Used in Oil Spill Response:

- Cover Page and Authorization Signatures
- Initial Incident Report
- Notification Status Report
- ICS-201-1 Incident Briefing, Map
- ICS-201-2 Incident Briefing, Initial Objectives and Summary of Current Actions
- ICS-201-3 Incident Briefing, Current Organization
- ICS-201-4 Incident Briefing, Resources Summary
- ICS-201-5 Weather Report
- ICS-202 Objectives
- ICS-203 Organization Assignment List
- ICS-204 Operations Tactical Assignment
- ICS-205 Radio Communications Plan
- ICS-206 Medical Plan
- ICS-207 Organization
- ICS-208 Site Safety Plan
- ICS-209 Incident Status Summary
- ICS-209 Incident/Spill Status Summary
- ICS-211e Equipment Check In/Out
- ICS-211p Personnel Check In/Out
- ICS-213 General Message
- ICS 213 RR – Resource Request
- ICS-214 Unit Log
- ICS-214a Individual Log
- ICS-215 Operational Planning Worksheet
- ICS-218 Support Vehicle/Vessel Inventory
- ICS 220 Air Operations Summary
- ICS-221 Demobilization Checkout
- ICS-230 Meeting Schedule
- ICS-231 Meeting Summary

- ICS-232 Resources at Risk
- ICS 233 Open Action Tracker
- ICS 234 Work Analysis Matrix
- ICS 235 Facility Needs Assessment

D.4.4 Record Retention

Describe company policy on record retention for oil spill response. Generally, such records should be kept indefinitely but at a minimum, relevant company and/or regulatory requirements should be cited here. Specify where they will be stored, security arrangements, and who will maintain custody.

D.4.5 Guidelines for the Incident File

The Incident File is a central repository of all the spill response documentation. It may contain a combination of electronic and hard copy records. Ideally, all the response documentation will be scanned and available electronically but if not a filing system for maintaining originals/copies of all response documents should be described. The Incident File will serve as a research tool for investigators and auditors.

Provide a discussion of how the Incident File is created, where the information is stored, access restrictions, and designated custodians.

Appendix E – Public Information and External Relations

Purpose: A public information and external relations program will be required for any significant oil spill. It is important that plans for collecting, compiling and disseminating spill information to the public and various stakeholders in a timely manner are described in the Oil Spill Response Plan. Establishment and management of the Joint Information Center activities is a vital component.

E.1 Introduction

This Appendix provides information on company policies and procedures for preparing news releases, interfacing with the public and media, conducting news conferences, disseminating information, monitoring news reports and social media, and establishing and working within the framework of a Joint Information Center.

E.2 Policy on Public Information

Describe the company policy on keeping the public informed about the spill and response efforts as well as the timing of those efforts. This includes disclosing information on the nature of the incident, hazards of the spilled product, area of impact, trajectory information, and actions underway to mitigate damage and remove the oil from the environment.

Emphasis should be placed on communicating a joint response effort with involved agencies and other organizations. This includes a joint effort to manage public information.

E.2.1 Information Priorities

Briefly describe the company's policy and priorities on releasing incident information to the public and media. This policy should emphasize that the company will cooperate with public authorities and the media to provide emergency response information promptly. Priorities in public information should be:

- Accuracy,
- Credibility,
- Timeliness,
- Consistency,
- Responsiveness, and
- Compliance with applicable laws and regulations.

E.2.2 Initial Information

During an oil spill response, the information provided to the public as well as employees, their families, the community, investors, authorities, and other stakeholders will often impact the perception of the response.

Describe the importance of timely dissemination of initial information both internally and externally. Consider emphasizing that in the first hours of a response, public information efforts are focused on the following principles:

- Alerting all employees, nearby facilities, transient parties, and the public of the incident.

- Providing awareness of any safety issues.
- Reporting the facts of the current situation.
- Delivering a message of empathy and compassion to impacted personnel, families, and resource stakeholders.
- Describing how the incident will be mitigated in coordination with public and private response organizations.

E.2.3 Spokesperson Policy

Describe who, other than the Incident Commander, within the company (by position) may be designated as a spokesperson for oil spill response, and their general responsibilities. Also describe the policy on how non-spokespersons should avoid making public statements if applicable.

E.3 News Release

Generally describe the objectives of a news release and the company's recommended timing and protocols for the initial and subsequent releases. Identify any applicable regulatory requirements for news release timing and content. Also describe the company's news release approval process as well as the need for Incident Commander or Unified Command approval prior to release.

E.3.1 Initial News Release

An initial News Release typically should be drafted within the first few hours for any incident requiring activation of the Spill Management Team, although this is a decision for the Incident Commander. In the early hours of a response a Holding Statement is often more appropriate until more incident information can be obtained and confirmed.

Describe the procedure for preparation and approval of Holding Statements and/or news releases and include Holding Statement templates if available. Also describe the critical elements of a News Release and how they should be drafted by the Public Information Officer with input from other team members.

If available, include company guidance on news release elements and if not describe how the initial News Release should be brief, and focus on the following key points:

- Statement of empathy and concern
- Nature of the incident, including description of the facility and products involved
- Location and time of the incident
- Numbers and types of victims (no names)
- Public safety hazards
- Potential environmental impact
- Mitigation and response efforts
- Assisting public agencies and response organizations

The News Release should also contain:

- Company background and description.
- Time/Date of any future Press Conferences or News Releases
- Media Information Call Center phone number
- Important Points of Contact

E.3.2 Approval Process

Describe how the drafted News Release is forwarded for review and approval. Include an approval flowchart if necessary.

E.3.3 Release to the Public

Describe how the News Release is forwarded to the media and other stakeholders.

Describe how follow-up and subsequent News Releases are prepared and released as needed following the same procedures.

E.3.4 News Release Templates

Provide, if available, pre-drafted News Release templates for potential incidents. These templates will help facilitate preparation of quality News Releases in a timely manner.

E.4 News Conference (Optional)

At some point during oil spill response, it may become necessary or advantageous to hold a news conference to allow a company Spokesperson to deliver a televised message and allow the media to ask questions. The decision to hold a news conference should be carefully considered by company management.

Under a Unified Command response, it is imperative to coordinate with the other Incident Commanders and ideally to hold a joint news conference.

Planning and preparation for any news conference is critical, and if necessary, third-party media consultants should be contracted to assist. The location of the news conference may be determined by a number of factors, but generally should not be held inside or close to a Command Post location and ideally at some distance away. Considerations must be made for media transportation vehicles, media staging areas, podium and backdrop for spokespersons, as well as other logistical issues. The news conference should be managed in a professional manner from beginning to end by an experienced media manager.

Describe the procedures and resources required should it become necessary to hold a news conference. These may include:

- Spokesperson preparation, opening statements and talking points
- Media holding area
- News conference location

- Third-party media consultants and specialists
- Backdrops and lecterns
- Maps and briefing displays/graphics
- Handouts
- Audio teleconference capabilities
- Pool media services

E.5 Joint Information Center

Reference: National Response Team – Joint Information Center Model, January 2010.

In this section, describe how the Spill Management Team Public Information Officer manages transition from company-led media affairs to the Joint Information Center model for joint media and public information management.

E.5.1 Background

The National Response Team – Joint Information Center Model documents a plan for conducting public information operations during emergency responses and other situations in which multiple organizations need to collaborate to provide timely, useful and accurate information to the public and other stakeholders. The primary focus of the model is to provide the Public Information Officer with a structure that works within the framework of the National Incident Management System and Incident Command System.

The National Response Team – Joint Information Center Model is flexible, scalable and can be adapted for use in a diverse range of field responses likely to be performed by National Response Team member agencies, ranging from a small, single agency, single-hazard response that lasts a few hours to a large, multiple agency, multi-hazards response or recovery operation that lasts for several weeks or months.

The National Response Team – Joint Information Center Model is a voluntary guidance document, not a regulation or requirement.

E.5.2 Establishment of Joint Information Center

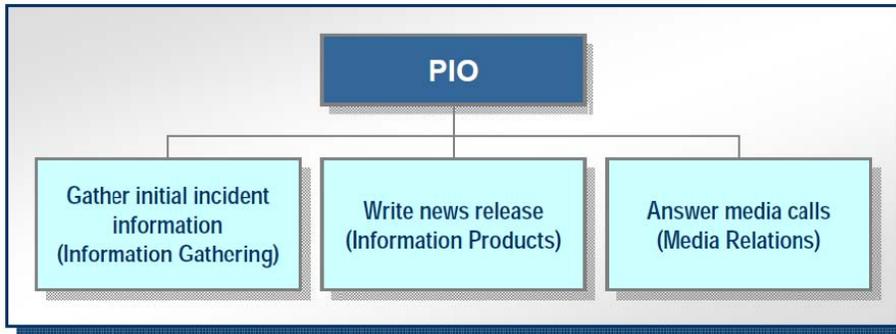
Discuss how the Unified Command decides to activate a Joint Information Center in response to an oil spill. Once activated, describe how the Spill Management Team transitions to this model.

The Joint Information Center structure is most useful when multiple organizations must coordinate timely, accurate information to the public and other stakeholders, including oil spills and other hazardous substance releases.

E.5.3 Joint Information Center Structure

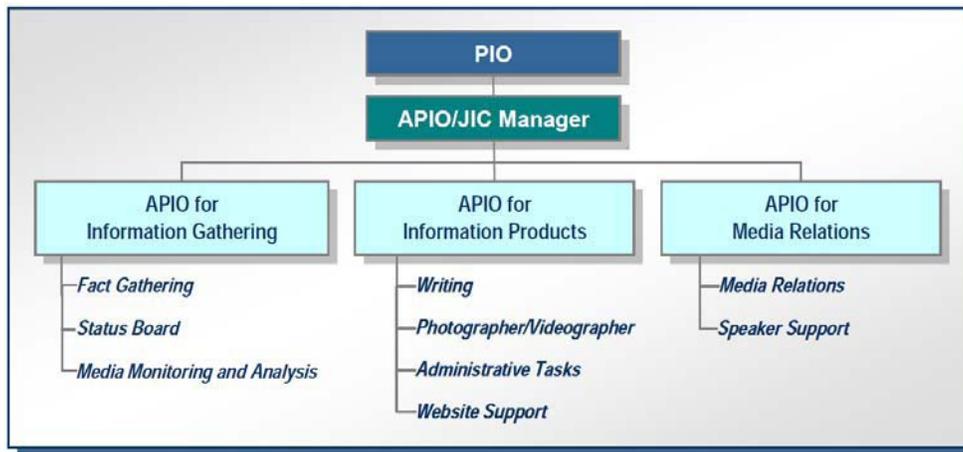
Describe the structure of a Joint Information Center for each tier of spill response.

The organizational chart below* represents the jobs being accomplished by the initial Public Information Officer and assistants, if any, before the Joint Information Center is formed.



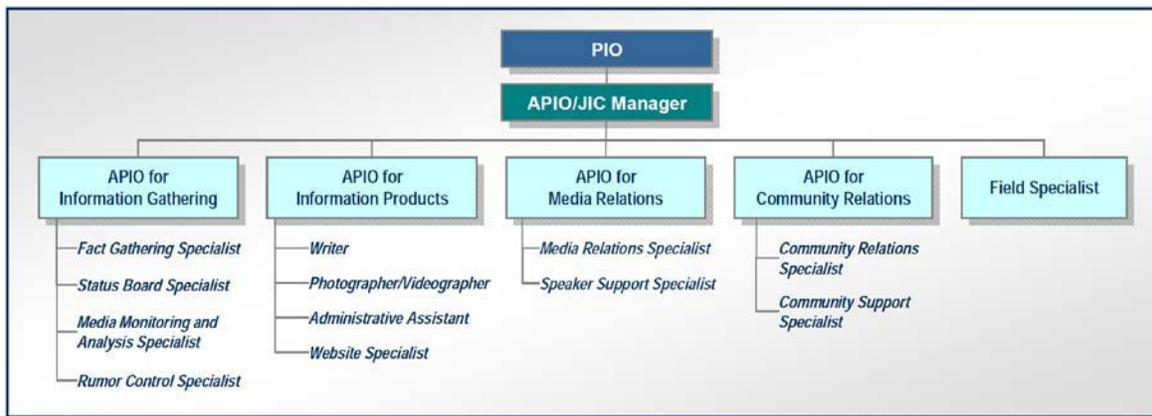
(*Source: National Response Team – Joint Information Center Model, January 2010)

The organizational chart below* is an example of how the initial Joint Information Center structure may look during a tier two incident.



(*Source: National Response Team – Joint Information Center Model, January 2010)

The organizational chart below* is an example of how a Joint Information Center structure may look during a tier three oil spill with major community relations issues and a need for constant Joint Information Center representation in the field.



(*Source: National Response Team – Joint Information Center Model, January 2010)

E.5.4 Staffing the Joint Information Center

Describe the personnel that will staff the Joint Information Center from within the company, and what third-party personnel are available for additional support.

E.5.5 Standing Down

Define when the Joint Information Center will “stand down”. Describe what steps, processes, or resolutions must occur for this to happen.

E.6 Information Call Center (Optional)

For significant oil spill incidents, it may be necessary to establish an Information Call Center (phone bank) to receive incoming calls from the media, community, and other stakeholders. The Center should be initially staffed for 24-hour operation and be equipped to handle the anticipated call volume at the highest level during a worst-case incident. Staffing should then scale up or down as needed. If the company does not have a call center, then this section can be eliminated.

If the company has an Information Call Center, or similar phone bank resource, describe that center, its location, staffing and the activation process. Contact numbers should be provided in Section 3.1 and referenced here. Specify who is responsible for activation and management of the call center and consider providing a checklist for activation, and roles and responsibilities for its staff. Also consider pre-identifying the call center phone numbers and providing guidance on how and where to publicize those numbers following an incident.

Discuss the objectives and functions of the call center and emphasize the importance of delivering consistent, up-to-date information that has been checked for accuracy and approved for release by the Incident Commander and/or Public Information Officer. Also describe the process used to disseminate inquiries received at the Information Call Center to appropriate team members. Include an acknowledgement of how this initial call center may be replaced by a similar function at the Joint Information Center, if activated.

E.7 Media Contact Information (Optional)

Provide a list of company phone numbers that will be released to the media. Include the main public information number, Media Information Call Center numbers (if any) and/or any information website(s). Use a figure or table for this purpose.

E.8 Websites and Social Media (Optional)

If the company uses website(s) for handling information during an oil spill response, provide that information in this section.

Describe the locations of the site(s), how they are maintained, how they are activated, and the personnel required to manage their content in a response.

E.9 Media and Public Information Resources (Optional)

If appropriate, identify vendors that can provide media consulting services during a response and provide brief descriptions of their specialties/capabilities. This includes media monitoring, drafting of news releases, spokesperson preparation, serving as Deputy Information Officer or Joint Information Center Manager, and facilitating all public information response needs. Contact information should be included in Section 4.1 and referenced here.

Appendix F – Risk Assessment and Scenario Planning

Purpose: In order to ensure adequate oil spill preparedness, it is important to understand the company's risk exposure to potential spill scenarios, and the potential impact those spills may have to environmentally and socio-economically sensitive areas.

The purpose of this Appendix is to analyze the company's risk exposure to various oil spill incidents, and determine how those spills may impact sensitive areas. This information will allow the company to target spill preparedness capabilities and focus on high-risk scenario planning. Facility risk analysis, oil spill trajectory analysis and spill scenario planning are tools that may be used to fulfill this objective.

F.1 Oil Spill Risk Assessment

Risk analysis should be conducted for each major facility, such as high volume production facilities, Right-of-Way or DOT pipelines, and exploratory wells with high volume blowout potential. Companies with smaller assets should conduct a scaled risk analysis based on the size of potential spill volumes. Companies with large numbers of assets may group similar assets, or group assets by geographic region for risk analysis purposes.

Remember: Spill volume alone is not the most significant factor in oil spill risk analysis. A small volume spill can have catastrophic consequences given the right set of circumstances.

Describe the oil spill risk analysis methodology for facilities covered under this Oil Spill Response Plan. The analysis should include determining potential types of oil that could be spilled, potential spill frequencies and potential spill volumes for each facility, or group of facilities, and the relative impact those spills may have to public safety, the environment and socio-economically sensitive areas.

There are many factors that influence the overall risk of an oil spill from a facility, or group of facilities, which should be considered for identification in this section including, but not limited to:

- Probability of a specific type of spill occurrence
- Potential spill volume
- Flammability of the oil
- Toxicity of associated vapors/gases (e.g. H₂S, benzene)
- Degree of immediate threat to public safety
- Source control capability
- Persistence of the spilled oil in the environment
- Proximity of the source to shore
- Relative environmental and socio-economic sensitivity of potentially impacted shoreline
- Potential economic impact
- Initial containment/removal response equipment mobilization timeframe
- Suitability of the oil to chemical dispersion
- Availability and suitability of adequate response resources

Each of the factors above should be considered when adjusting the overall risk ranking for each facility, or group of facilities.

F.2 Spill Scenarios

For each facility, or group of facilities where oil spill risk analysis is conducted, describe potential oil spill scenarios for the primary types of oils produced or handled (crude oil, condensate, fuel oils, lubricating oils, drilling fluids, hydraulic oils, and other hydrocarbon sources) at the facility/facilities or involved with the operation.

Spill scenarios should identify the following information:

- Asset or facility name
- Type of oil
- Potential causal factors
- Source of the oil discharge
- Time to detect and shut down
- Source control procedures and timeframes
- Potential spill volumes (instantaneous volume, or daily rate)
- Sensitive areas and/or shorelines that could be threatened
- Potential spill movement and time to impact sensitive areas/shorelines

Provide the information above in a figure or table format as appropriate.

F.2.1 Worst-Case Discharge

Based on the spill scenario analysis above, identify the company's potential discharges for planning purposes.

For exploratory wells where the potential spill volume cannot be accurately predicted, use potential highest well flow volumes based on the best available information.

Review all potential discharges and select the appropriate worst-case scenario(s). Explain the factors that contribute to selection of each identified worst-case discharge, such as spill volume, persistence of oil, distance to sensitive areas/shorelines, etc. List the selected worst-case discharge(s) in a table or figure.

Example Worst-case Discharge Selection Table

Type of Operation	Asset	Criteria for Selection	Oil Type	Potential Spill Volume (or Rate)	Additional Information
Production	Platform Y	Spill volume, proximity to shoreline and sensitive areas	Crude Oil	200,000 bbls per day	Source would be highest flowing well 37 API, non-persistent oil
Drilling	Exploratory Well 1	Spill volume, potential uncontrolled source	Crude Oil	160,000 bbls per day	Source would be uncontrolled well flow Oil characteristics are unknown, but expected to be non-persistent
Production	Platform Y	Proximity to shoreline and sensitive areas	Diesel	5,000 bbls	Source would be fuel storage tank on platform Non-persistent oil type
Pipeline	Pipeline X	Spill volume, detection and shutdown timeframe, proximity to shoreline and sensitive areas	Condensate	4, 500 bbls	Source would be pipeline rupture Non-persistent oil type Pipeline comes ashore in proximity to sensitive areas

F.3 Spill Modeling

Use best available trajectory analysis tools and oil budget calculations for appropriate spill scenarios, including the selected worst-case discharges. Stochastic/probabilistic modeling (i.e. OSRAM) is acceptable but will not provide an estimated time to shoreline or sensitive area impact nor will it provide an estimation of the oil slick size.

The primary purpose of spill modeling is to identify the potential impact area(s) associated with spills from a facility or group of facilities and ensure that adequate response resources, of the right kind and type, are available for an effective response. Deterministic trajectory spill modeling also provides probable direction of spill movement and estimated timeframes for a spill to reach a shoreline/sensitive area to evaluate if protection measures can be implemented prior to impact. The trajectory models will also inform chemical dispersant/in-situ burning planning and other planning considerations.

In determining the number of spill models to prepare, consider the following factors:

- Number of facilities and spill sources
- Geographic area covered by multiple facilities (a single spill model may suffice for multiple facilities in the same region)
- Overall risk ranking of facilities (for example, a high or very high risk ranking should trigger spill modeling analysis)
- Availability of pre-existing spill behavior models for the region

Consider running spill models for each representative season of the year for each selected worst-case spill scenario. Use historic wind and appropriate hydrodynamic data.

Spill models should be run for a length of time necessary to determine the ultimate fate of the spilled oil if no removal actions were taken, or up to 7 days, whichever is less.

F.4 Scenario-Based Response Planning

Scenario based planning is a tool to ensure sufficient consideration has been given to the potential spill sizes, movements, potential areas of impact and availability of adequate resources within the required timeframes to respond effectively. Although the regulations only require planning for the Worst-Case Discharge (Tier 3), consideration should be given to conducting scenario-based response planning for representative Tier 1 and 2 scenarios as well.

In general, scenario planning should be utilized to:

- Identify the quantities of oil spill removal resources that would be required, based on the size and movement of the spill and its oil budget graph.
- Identify sensitive resources potentially at risk and their probability of oiling.
- Determine best protective measures for potentially affected sensitive areas and/or shorelines.
- Evaluate the response planning timeframes for implementing the above identified sensitive areas protective measures.
- Demonstrate response planning timeframes to key points in the spill progression, i.e. time for the spill to leave the dispersant pre-approval zone, or time to shoreline impact.

F.4.1 Tier 1 Oil Spill Scenario

Describe a typical tier 1 spill scenario response based on risk analysis for the facility, or group(s) of facilities. Include figures and/or tables that provide the following information, as practical:

- Facility/Facilities information and location
- Tier 1 discharge volume (may be an average, or specific example)
- Oil budget graph (evaporation, dispersion, emulsification, etc.)
- Planned oil spill response strategies and tactics, including, but not limited to, any of the applicable methods below:
 - Spill Monitoring
 - Natural dispersion
 - Chemical dispersion
 - Containment
 - Mechanical recovery
 - Temporary storage

- For each offshore response strategy identified for a tier 1 spill response, provide the following information:
 - Resources required (personnel, supplies and equipment – include quantities)
 - Equipment transportation requirements
 - Weather limitations for major spill equipment
 - Calculations that demonstrate oil spill monitoring, protection, containment, removal and temporary storage resources are available in adequate timeframes and quantities to respond effectively
 - Starting location of resources and the time required for deployment
 - Locations of airbases, shore bases and loading docks required

F.4.2 Tier 2 Oil Spill Scenario

Describe a typical tier 2 spill scenario response based on risk analysis for the facility, or group(s) of facilities. Include figures and/or tables that provide the following information, as practical:

- Facility/Facilities information and location
- Tier 1 discharge volume (may be an average, or specific example)
- Oil budget graph (evaporation, dispersion, emulsification, etc.)
- Potential shoreline impact timeframes if no removal actions were taken
- Potential environmental/socio-economic sensitive area impact areas if no removal actions were taken
- Planned offshore oil spill response strategies and tactics, including, but not limited to, any of the applicable methods below:
 - Spill Monitoring
 - Natural dispersion
 - Chemical dispersion
 - Containment
 - Mechanical recovery
 - Temporary storage
- For each offshore response strategy identified for a tier 2 spill response, provide the following information:
 - Resources required (personnel, supplies and equipment – include quantities)
 - Equipment transportation requirements

- Weather limitations for major spill equipment
- Calculations that demonstrate oil spill monitoring, protection, containment, removal and temporary storage resources are available in adequate timeframes and quantities to respond effectively
- Starting location of resources and the time required for deployment
- Locations of airbases, shore bases and loading docks required
- If shoreline impact is possible for a tier 2 spill scenario in the first 48 hrs, a **Geographic Response Plan** (GRP) for that impacted shoreline should be included in **Section 7.0** (or the corresponding GRP or equivalent plan referenced in the applicable Area Contingency Plan). The GRP should include:
 - Priorities of protective booming
 - Specific booming or other protection strategies
 - Shoreline types
 - Access roads
 - Staging areas
 - Shoreline cleanup methods
 - Resources required
 - Starting location of resources and time required for deployment

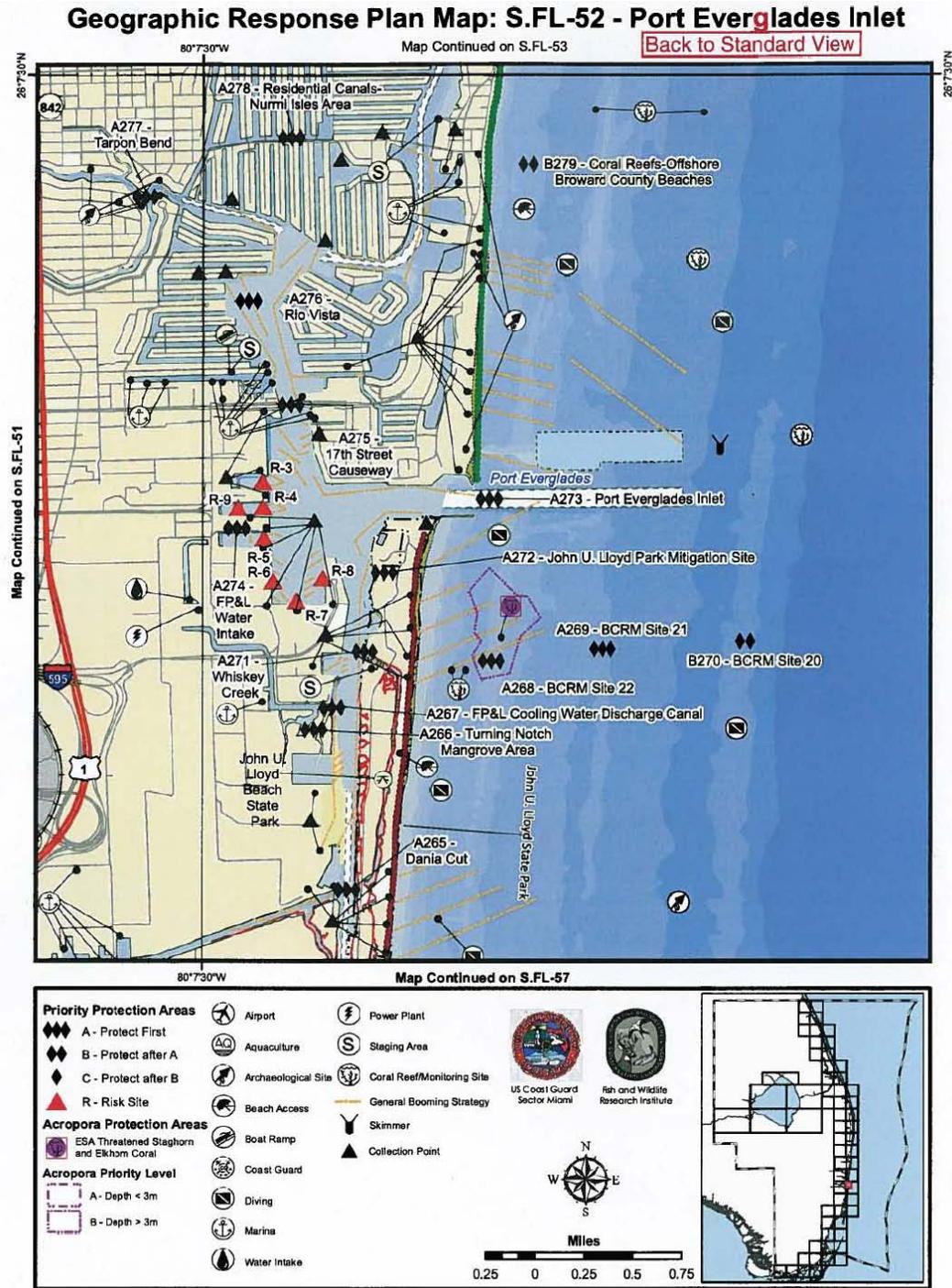
F.4.3 Tier 3 Oil Spill Scenario

Describe the tier 3 spill scenario(s) identified during the risk analysis process and/or the worst-case discharge scenario(s).

Include figures and/or tables that provide the following information, as practical:

- Facility information and location
- Tier 3 discharge volume(s)
- Oil budget graph (evaporation, dispersion, emulsification, etc.)
- Potential shoreline impact timeframes if no removal actions were taken
- Potential environmental/socio-economic sensitive area impact areas if no removal actions were taken
- Planned offshore oil spill response strategies and tactics, including, but not limited to:
 - Spill Monitoring
 - Chemical dispersion

- Containment
- Mechanical recovery
- Temporary storage
- In-situ burning
- For each offshore response strategy identified for a tier 3 spill response, provide the following information:
 - Resources required (personnel, supplies and equipment – include quantities)
 - Calculations that demonstrate oil spill monitoring, protection, containment, removal and temporary storage resources are available in adequate timeframes and quantities to respond effectively
 - Equipment transportation requirements
 - Weather limitations for major spill equipment
 - Starting location of resources and the time required for deployment
 - Locations of airbases, shore bases and loading docks required
 - For dispersants – Amount of dispersant stockpiles under contract, additional stockpiles that may be available, and planned production quantities if needed
 - For in-situ burning – Resources available for production of additional fire boom and related equipment
 - Waste/Disposal – Adequate resources available for sustained oil/oily waste transportation, storage and disposal
- Describe general shoreline protection and cleanup strategies. Reference to Area Contingency Plans may be preferable to detailed information, since the area of impact may be unpredictable and widespread.
- Describe potential adverse weather conditions, and how weather may impact the response. Include general strategies for severe weather that may occur during response operations.
- Describe additional oil spill response resources available from public and private sources that could contribute to the response effort, beyond those owned or under contract.
- Describe how response operations will be supported for a long-term response, to the extent practical.
- Provide a discussion of any international resources that may be available to contribute to the response effort.



Sample Geographic Response Plan

Appendix G – Training, Drills and Exercises

Purpose: Training is required to provide qualified oil spill response personnel with adequate core competencies. Drills/exercises are necessary to improve and promote a safe, effective, and efficient response to an oil spill. It is important to document the company's training and drill program to enhance awareness among company response personnel, facilitate adherence to the program and demonstrate compliance with regulatory requirements.

This Appendix should address the policy, requirements, frequencies, procedures, and record-keeping requirements for oil spill response training, drills and exercises.

G.1 Introduction

Briefly describe the company's policy on oil spill response training, drills and exercises which is recommended to include how:

- Training, drills and exercises contribute to the preparedness of the Spill Management Team, Spill Response Operating Team, and other associated organizations.
- The company will comply with regulatory requirements, as well as performing such training, drills and exercises consistent with any adopted guidelines or best practices. These may include such documents as:
 - National Preparedness for Response Exercise Program (NPREP)
 - National Incident Management System (NIMS) Training Program (FEMA)
 - Homeland Security Exercise and Evaluation Program (HSEEP)
- The company encourages training, drills and exercises beyond the regulatory minimums to ensure enhanced preparedness, if warranted.

Also describe the company's evaluation program to ensure effectiveness in developing a cohesive and functional Spill Management Team and Spill Response Operating Team. Performance of the team in an actual or simulated response should be evaluated and measured. Results of this measurement should be used to adjust the type, duration and frequencies of training, drill and exercise programs to ensure an adequate performance level is achieved.

G.2 Training Program for Offshore Oil Spill Response

Describe the overall training program for individuals, and groups of individuals as well as the training requirements specific to each position on the Spill Management Team and Spill Response Operating Team as applicable. Consider including a table or matrix similar to the abbreviated example shown below.

Response Team/ Position	HAZWOPER				ICS			Spill Response			
	Operations	Haz Tech	IC	Refresher	100 – 200	300	IC	OSRP	Equip Deploy	Dispersants	Environment
Tier 1 Team											
IC/QI	I		I	A	I	I	I	I/A			
SOFR		I		A	I	I		I/A			
OSC		I		A	I	I		I/A			
Tier 2 Spill Management Team											
Incident Cmdr	I		I	A	I	I	I	I/A			
OSC		I		A	I	I		I/A	I	I	
PSC	I			A	I	I		I/A		I	I

I – Initial

A – Annual

G.2.1 Training Courses

Include a brief description of the training courses that will be provided to the Spill Management and Response Operating Teams. The following training courses, or their equivalent, are recommended for inclusion in the training program for the Tier 1/2 Spill Management Team and Spill Response Operating Team.

Incident Command System (ICS) Training

The following ICS training components should be considered as basic training primarily for Spill Management Team Command Staff and Section Chief positions but key Spill Management Team positions should receive at least ICS 100-200 level training:

- **National Incident Management System, IS-700 NIMS, an Introduction:** This course introduces the NIMS concept. NIMS provides a consistent nationwide template to enable all government, private sector, and nongovernmental organizations to work together during domestic incidents.
- **IS-800 National Response Framework (NRF), an Introduction:** The course introduces participants to the concepts and principles of the NRF.

- **National Oil and Hazardous Substances Pollution Contingency Plan:** This course would describe the background, purpose and requirements of the U.S. National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300).
- **ICS-100 Introduction to the Incident Command System (ICS):** This course introduces ICS and provides the foundation for higher level ICS training. It describes the history, features and principles, and organizational structure of the system. It also explains the relationship between ICS and NIMS.
- **ICS-200 ICS for Single Resources and Initial Action Incidents:** This course is designed to enable personnel to operate efficiently during an incident or event within the ICS. ICS-200 provides training and resources for personnel who are likely to assume a supervisory position within the ICS.
- **ICS-300 Intermediate ICS for Expanding Incidents:** ICS-300 provides training and resources for personnel who require advanced knowledge and application of the ICS. This course expands upon information covered in the ICS-100 and ICS-200 courses.
- **ICS-400 Advanced ICS:** This course provides training and resources for personnel who require advanced application of ICS. This course expands upon information covered in ICS-100 through ICS-300.
- **IS-703 NIMS Resource Management:** This course provides training to help resource managers prepare before an incident and contribute effectively to incident response.

HAZWOPER Training

In compliance with 30 CFR 1910.120, most individuals on the Spill Response Operating Team and selected members of the Spill Management Team may be required to complete various levels of HAZWOPER training depending on their roles in a response. The levels of training that typically apply to Spill Response Operating Team and/or Spill Management Team members include:

- **First Responder Awareness:** Individuals who are likely to discover a release and have been trained to initiate an emergency response sequence by notifying the appropriate authorities but would take no further action.
- **First Responder Operations:** In addition to the awareness level above, this includes individuals who would respond in a defensive manner (i.e. not enter the hot zone) to contain the release at a distance to keep from spreading and prevent exposures.
- **Hazardous Materials Technicians:** Individuals who respond aggressively to releases for the purposes of stopping the release and could enter the hot zone. They could act as a liaison with government authorities.
- **On Scene Incident Commander:** Individuals who will assume control of the incident scene and will have training equal to the First Responder Operations level plus demonstrate competency in a number of tasks most of which are covered below under Spill Response/Management Training.

Spill Response/Management Training

In addition, all members of the **Spill Management Team** should receive the following training:

- **Oil Spill Response Plan Familiarization:** This course provides a review and discussion of the layout and contents of the company's Oil Spill Response Plan.

- **Area Contingency Plan Familiarization:** This course provides an overview of the Area Contingency Plan(s) that apply to the company's operating region.
- **Position-specific Training:** Each member of the Spill Management Team should receive training on the roles and responsibilities of their position, based on the company's specific Oil Spill Response Plan and other related response plans.
- **Oil Spill Response Strategies:** This course provides an overview of oil spill removal strategies, including natural dispersion, chemical dispersion, mechanical recovery and in-situ burning. It includes a discussion of booming strategies, shoreline protection, and general offshore/shoreline oil spill response methods and techniques.
- **Oil Spill Response Equipment and Services:** This course describes the oil spill response equipment available to the organization, its use, locations, deployment considerations, and limitations of effectiveness. For those that will be operating the response equipment, this course should also include instruction on equipment inspection and maintenance.
- **Fate and Effects of Oil Spilled in the Offshore Environment:** This course covers the effects of weathering on spilled oil, oil spill trajectory analysis, and the ultimate fate of hydrocarbons in the environment.
- **Oil Spill Response Safety:** This course may be part of an oil spill specific HAZWOPER course, or a stand-alone course that covers oil spill hazards, safety mitigation, air monitoring, PPE, and other safety considerations for oil spill response.

Qualified Individuals

As generally required by regulation, Individuals designated as Qualified Individuals should, in addition to the training above, receive specific training for their role, including, but not limited to:

- Background, purpose and authority of the Qualified Individual,
- Spill notification and agency reporting requirements,
- Oil spill response equipment mobilization procedures,
- Finance and funding of oil spill response,
- Role of public response agencies in oil spill response,
- Communicating with public officials and the Unified Command,
- Company-specific duties and responsibilities, and
- Relationship to the Incident Commander position.

Spill Response/Management Training

Spill Response Operating Team training includes, but may not be limited to, the following:

- **Oil Spill Response Planning Overview:** This course provides a review and discussion of the layout and contents of applicable Oil Spill Response Plans and Area Contingency Plans.

- **Oil Spill Response Strategies:** This course provides an overview of oil spill removal strategies, including natural dispersion, chemical dispersion, mechanical recovery and in-situ burning. It includes a discussion of booming strategies, shoreline protection, and general offshore/shoreline oil spill response methods and techniques.
- **Equipment Training:** Provide personalized training on how to inspect, maintain and safely operate each piece of oil spill response equipment.
- **Oil Spill Response Safety:** This course may be part of an oil-spill specific HAZWOPER course, or a stand-alone course that covers oil spill hazards, safety mitigation, air monitoring, PPE, and other safety considerations for oils spill response.

G.2.2 Training Frequencies

The frequency of training required for Spill Management Team members and Spill Response Operating Team members should be determined based on the company's relative risk exposure to its potential oil spills. Companies with exposure to high risk spills should increase the frequency and duration of required training.

At minimum, each team member should receive initial training that includes the applicable elements discussed in the previous section, and annual refresher training that focuses on their responsibilities.

Include a list the company's minimum requirements for oil spill response training, including their frequencies and required participation (see example table above). Identify any applicable regulatory requirements. This list may include training or exercise expectations above and beyond those required by regulation.

G.3 Drill and Exercise Program for Offshore Oil Spill Response

Describe the company's drill and exercise program intended to maintain proficiency in offshore oil spill response and compliance with applicable regulatory requirements or guidelines.

G.3.1 Drill and Exercise Types and Requirements

In this section, describe the company-specific and regulatory requirements/guidelines for oil spill response drills and exercises.

The types, duration and frequencies of drills and exercises should be consistent with the relative risk potential for the company's operations as well as regulatory guidelines. Companies with exposure to high risk oil spills should increase the frequency and duration of required drills and exercises.

Different components or elements of oil spill response may be tested in exercises over a multi-year program, if that multi-year program is well-documented and there are no significant lapses in adequate preparation of the team.

Drills and exercises should include, over a multi-year cycle, each tier of oil spill response to ensure response capability exists for all types of potential oil spills. Exercises involving worst-case discharges should be held with sufficient frequency to ensure adequate preparation but is generally triennially to ensure consistency with the NPREP Guidelines.

G.3.1.1 Notification Drills

Notification drills are used to test the oil spill reporting procedures, verify contact information and ensure that appropriate personnel can be contacted in the event of a spill. These drills may be held in conjunction

with other exercises, and may include additional internal company notifications and external agency notifications.

G.3.1.2 Spill Management Team Exercise

Involve key personnel discussing hypothetical scenarios in an informal setting. This type of exercise can be used to assess plans, policies, and procedures or to assess the systems needed to guide the prevention of, response to, and recovery from a defined incident. At minimum, the Spill Management Team should exercise on an annual basis. These exercises can be of any type, but at least one exercise per year should be a Functional Exercise, or a Full-Scale Exercise, that involves the entire Spill Management Team. Different oil spill scenarios should be chosen and exercised over a multi-year cycle to expose the team to all tier levels of response, including worst-case discharge scenarios.

G.3.1.3 Equipment Deployment

Designed to validate and evaluate the ability to deploy spill response equipment in a timely manner and ensure all equipment is maintained and functioning normally. Company-owned spill response equipment should, at minimum, be deployed and tested on an annual basis. This may be done in conjunction with a training course, drill or exercise. A maintenance program that demonstrates functionality of the equipment may be used to determine a more appropriate deployment and testing frequency.

Contracted (OSRO) spill response equipment should, at minimum, also be deployed and tested on an annual basis. A maintenance program that demonstrates functionality of the equipment may be used by the contractor to determine a more appropriate deployment and testing frequency. Consideration may be given to the frequency of contracted oil spill response equipment deployment exercises based on its actual deployment and use in real events. The company is responsible for checking to ensure the contractor has met their annual equipment deployment requirements and should receive some form of documentation from the contractor.

G.3.1.4 Unannounced Drills and Exercises

Unannounced drills and exercises such as those described above should be held periodically to test overall readiness, equipment availability and team activation procedures. Regulatory agencies may also conduct unannounced drills and, as such, the company policy and procedures for responding to these unannounced drills should be included in this section.

G.3.2 Frequency of Drills and Exercise Table

List the company's minimum requirements for oil spill response drills and exercises, including their frequencies and required participation. Identify any applicable regulatory requirements associated with each drill/exercise to demonstrate compliance. This list may include training or exercise expectations above and beyond those required by regulation. This information can be provide in a tabular format similar to the example table provided below.

Example Table

Drill/Exercise Name	Regulatory Reference	Type and Description	Required Participants	Frequency

G.4 Documentation and Follow-up

Describe the process the company will follow to ensure each training, drill or exercise event is adequately documented and that any lessons learned are captured and a list of action items prepared and tracked to completion.

G.4.1 Training Documentation

Briefly describe or list the types of information that should be documented following each training session. This could include:

- Type
- Date, Time, Duration and Location
- Participants
- Objectives
- Topics Covered
- Lessons Learned and Action Items

G.4.2 Drills and Exercises Documentation

Briefly describe or list the types of information that should be captured following each drill or exercise. Consideration should be given to utilizing the documentation forms provided in the NPREP guidelines and including blank copies in this section. In general, information that should be captured includes:

- Type
- Location(s)
- Date, Time and Duration
- Participants
- Objectives Achieved
- Scenario
- Summary of Events
- List of equipment deployed, or simulated deployed
- Notifications made or simulated
- Incident Action Plans developed
- Participant logs and notes

- Lessons Learned

G.4.3 Follow-Up

Discuss the need to conduct follow-up on any lessons learned arising from training, drills or exercises including preparation of an Action Item list and assignment of responsibilities for completing each item. Action items could involve:

- Plan revisions
- Changes to training or drill/exercise formats or processes
- Changes to company response procedures/processes
- Additional training needs
- Purchase of additional equipment or supplies
- Other

Generally, an **After Action Report/Improvement Plan** should be prepared following each drill and exercise. This will help develop action lists and priorities for plan improvement, subsequent drills and exercise focus, equipment improvements, and additional training requirements. The action items generated should be captured in the company Management of Change system, or similar tracking system, to ensure they are implemented.

G.5 Recordkeeping

Provide a description of where training, drill and exercise records are stored and maintained. Describe who, or what department, in the company is responsible for maintaining these records.

If paper records are used, identify their storage location, access restrictions and custodian(s).

If electronic records are used, identify their computer file folder location, access restrictions, backup location(s), and custodian(s).

Appendix H – Prevention and Detection

Purpose: The purpose of this Appendix is to describe oil spill prevention measures intended to minimize the risk of a spill occurring, as well as describe how spills are detected by facility operators.

H.1 Introduction

This Appendix should be used to describe oil spill prevention policies, guidelines and procedures as well as detection measures that apply to production facilities, drilling rigs, wells and pipelines covered under this Oil Spill Response Plan.

H.2 Prevention

H.2.1 Regulatory Applicability

Identify and list all local, State and/or Federal oil spill prevention regulations that apply to company facilities and pipelines covered under this Oil Spill Response Plan. Provide a brief overview of each regulation.

H.2.2 Industry Standards and Best Practices

Identify and provide a brief description of industry spill prevention standards and best practices that apply to company facilities and pipelines covered under this Oil Spill Response Plan.

H.2.3 Prevention Measures

Briefly describe the measures the company has taken to prevent spills at each facility or group of facilities covered by this plan. If multiple facilities are covered, consider including a matrix with the facilities listed along one axis and the prevention measures along the other. Also identify the prevention measures that are linked to a regulatory requirement or industry standard/best practice.

Examples of spill prevention measures could include, but are not limited to:

Written Procedures:

- Job tasks
- Shift turnover logs
- Work permits, etc.
- Shutdown and start-up

Pipelines:

- Valve position indicators
- Pipeline/valve labels to identify contents and flow directions
- Integrity assurance measures (pigging, cathodic protection, etc.)
- Pressure monitoring

Storage Tanks:

- Automatic tank gauges
- Level alarms
- Remote or automatic valve/pump controls
- Inspections

Containment Systems:

- Storage Tanks
- Pipelines
- Operating/Process Areas

Inspection/Testing Programs:

- Visual Inspection
- Ultrasonic Tank Shell Thickness Testing
- Pipeline Pressure Testing
- Gauging and Alarm System Testing

H.3 Detection

For each major facility or pipeline, and/or each group of similar facilities, describe the procedures/measures in place to detect spills in a timely manner including the associated timeframes of detection, if known.

Include brief descriptions of the types of spill detection systems in place and initial automated or manual actions taken to shut down the source. Types of spill detection systems could include:

- Remote Sensors (hydrocarbon/H₂S vapor, IR, oil in water, etc.)
- Pressure/Flow/Volume Sensors
- Emergency Shutdown Devices (ESD)
- High/Low Level Alarms
- Periodic Visual Monitoring
- Aerial Monitoring

Appendix I – Definitions and Acronyms

Purpose: The purpose of this section is to provide any necessary definitions of terms or acronyms used that will help spill management personnel understand the Oil Spill Response Plan and any other related functions.

I.1 Definitions

Include definitions of terms that are used in the Oil Spill Response Plan and that may not be widely understood by response team members.

I.2 Acronyms

Spell out any acronyms or initials used in the Oil Spill Response Plan. A compilation of common acronyms/initials used in this Guideline and their definitions are provide below.

ACP	Area Contingency Plan
ADIOS 2	Automated Data Inquiry for Oil Spill 2
AIS	Automatic Identification System
API	American Petroleum Institute
BOP	Blowout Preventer
BSEE	Bureau of Safety and Environmental Enforcement
Cedre	Centre of Documentation, Research and Experimentation on Accidental Water Pollution
CFR	Code of Federal Regulations
CGA	Clean Gulf Associates
CRC	Contamination Reduction Corridor
DHS	U.S. Department of Health and Human Services
DORs	Dispersant to Oil Ratio
DOT	U.S. Department of Transportation
EDRC	Estimated Daily Recovery Capacity
EOC	Emergency Operations Center
EPA	U.S. Environment Protection Agency
ESD	Emergency Shutdown
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
FOSCs	Federal On-Scene Coordinators
GETS	Government Emergency Telecommunications Service
GRP	Geographical Response Plan
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HSE	Health Safety and Environment
HWCG	Helix Well Containment Group
IAP	Incident Action Plan

IC	Incident Commander
ICP	Integrated Contingency Plan or Incident Command Post
ICS	Incident Command System
IDLH	Immediately Dangerous to Life or Health
IMO	International Maritime Organization
IPIECA	International Petroleum Industry Environmental Conservation Association
ITOPF	International Tanker Owners Pollution Federation
IWOCS	Installation/Workover Control System
JIC	Joint Information Center
LEL	Lower Explosive Limit
LOSC	Local On-Scene Coordinator
MMS	Minerals Management Service
MSDS	Material Safety Data Sheets
MSRC	Marine Spill Response Corporation
MWCC	Marine Well Containment Company
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEBA	Net Environmental Benefit Assessment/Analysis
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NPREP	National Preparedness for Response Exercise Program
NRDA	Natural Resource Damage Assessment
NRF	National Response Framework
NRT	National Response Team
NTL	Notice to Lessees
OPA	Oil Pollution Act
OR&R	Office of Response and Restoration
OSHA	Occupational Safety and Health Administration
OSRO	Oil Spill Removal Organization
OSRP	Oil Spill Response Plan
OSWG	Oil Spill Working Group
PIO	Public Information Officer
PPE	Personal Protective Equipment
PPM	Parts Per Million
QA	Quality Assurance
QC	Quality Control
QI	Qualified Individual

RIN	Renewable Identification Number
ROVs	Remotely Operated Vehicles
ROW	Right-Of-Way
RR	Resource Request
RRI	Response Resource Inventory
RRT	Regional Response Team
SCAT	Shoreline Cleanup Assessment Team
SIMOPS	Simultaneous Operations
SMT	Spill Management Team
SONS	Spill of National Significance
SOSCs	State On-Scene Coordinators
SROT	Spill Response Operating Team
UC	Unified Command
UEL	Upper Explosive Limit
USCG	United States Coast Guard
VOO	Vessel of Opportunity
WCD	Worst-case Discharge
WPS	Wireless Priority Service



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