

OIL SPILL RESPONSE PLAN

OXY USA Inc. - LA Basin
OPID: 32602

JULY 2013

Prepared for:

OXY USA Inc. - LA Basin
301 E. Ocean Blvd., Suite 300
Long Beach, CA 90802
Phone: (562) 697-7603
Fax: (562) 697-5365

Prepared by:

Witt O'Briens.
818 Town & Country Blvd., Suite 200
Houston, TX 77024
(281) 320-9796 Phone
(281) 320-9700 FAX
www.wittobriens.com

ACKNOWLEDGMENT AND PLAN APPROVAL

The information and procedures in this Plan must be treated as guidelines only. The user should determine to what extent it is practical and advisable to follow them. This decision may involve considerations not discussed in this Plan.

The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5.

CERTIFICATION OF QUALIFIED INDIVIDUAL AND ALTERNATE QUALIFIED INDIVIDUAL

OXY USA Inc. - LA Basin hereby certifies that the individuals identified as Qualified Individual and Alternate Qualified Individual in this Plan have the full authority in accordance with the applicable federal and state regulations and as detailed in this Plan to:

1. Activate and engage in contracting with oil spill removal organizations.
2. Act as a liaison with the pre-designated Federal On-Scene Coordinate (OSC), and
3. Obligate funds required to carry out response activities.

Plan Approved:



Date: 7/10/2013

NOTE: Witt O'Brien's provided consulting and plan development services in the preparation of this Plan utilizing data provided by the owner/operator. Witt O'Brien's assumes no liability for injury, loss, or damage of any kind resulting directly or indirectly from the use of the regulatory interpretation, response planning, or information contained in this plan.

OPERATOR'S STATEMENT - SIGNIFICANT AND SUBSTANTIAL HARM AND CERTIFICATION OF RESPONSE RESOURCES

FACILITY NAME: OXY USA Inc. - LA Basin, Sansinena Pipeline, Pipeline #1105

FACILITY ADDRESS: 153 Canada Sombre
La Habra Heights, CA 90631

Is the pipeline greater than 6 and 5/8 inches (168 mm) in outside nominal diameter, greater than 10 miles (16 km) in length? and

YES _____ NO X _____

1. Has any line section experienced a release greater than 1,000 barrels (159 cu. Bbl) within the previous five years? or

YES _____ NO X _____

2. Has any line section experienced two or more reportable releases, as defined in Sec. 195.50, within the previous five years? or

YES _____ NO X _____

3. Does any line section contain any electric resistance welded pipe, manufactured prior to 1970 and operates at a maximum operating pressure established under Sec. 195.406 that corresponds to a stress level greater than 50 percent of the specified minimum yield strength of the pipe? or

YES _____ NO X _____

4. Is any line located within a 5-mile (8 km) radius of potentially affected public drinking water intakes and could reasonably be expected to reach public drinking water intakes? or

YES _____ NO X _____

5. Is any line located within a 1-mile (8 km) radius of potentially affected environmentally sensitive areas and could reasonably be expected to reach these areas?

YES X _____ NO _____

OXY USA Inc. - LA Basin hereby certifies to the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation that we have identified and ensured, by contract or by other means, the availability of personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge.

Mark S. Kapelke
Signature

Vice President
Title

Mark S. Kapelke
Name (please type or print)

7/10/2013
Date

DISTRIBUTION LIST	
COPY NUMBER	PLAN HOLDER (Hard Copies)
1, 2	OXY USA Inc. - LA Basin, Sansinena Pipeline 153 Canada Sombre La Habra Heights, CA 90631
3, 4 (electronic)	Facility Response Plan Officer U.S. Department of Transportation Office of Pipeline Safety PHP-5 Pipeline and Hazardous Materials Safety Administration 1200 New Jersey Avenue S.E. Room E22-321 Washington, DC 20590-0001
5 (electronic)	Witt O'Brien's 818 Town & Country Blvd., Suite. 200 Houston, TX 77024

NOTE: The Distribution of this Plan is controlled by the Copy Number located on the front cover. The Plan Distribution Procedures provided in Section 1.3 and the Plan Review and Update Procedures provided in Section 1.4 should be followed when making any and all changes.

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1.0 INTRODUCTION AND PLAN CONTENT

1.1 PLAN PURPOSE/OBJECTIVES

The purpose of this Oil Spill Response Plan (Plan) is to assist OXY USA Inc. - LA Basin, Sansinena Pipeline personnel to prepare for and respond quickly and safely to a discharge originating from the pipelines and associated facilities. The Plan provides techniques and guidelines for achieving an efficient, coordinated, and effective response to a discharge incident, which may occur at the Facility.

The specific objectives of the Plan are to:

- Establish Response Teams, assign individuals to fill the positions on the teams, and define the roles and responsibilities of team members.
- Define notification, activation, and mobilization procedures to be followed when a discharge occurs.
- Define organizational lines of responsibility to be adhered to during a response operation.
- Document equipment, manpower, and other resources available to assist with the response.
- Ensure compliance with the federal, state, and local oil pollution regulations.
- Ensure consistency with the National Contingency Plan (NCP) and Area Contingency Plan(s) (ACP) for the area of operation.

1.2 SCOPE OF PLAN

This Plan has been developed in accordance with the regulation published in 49 CFR Part 194. This Plan contains prioritized procedures for Company personnel to mitigate or prevent any discharge resulting from the operation of the pipeline. A description of the pipeline's details can be found in Figure 1.1 with additional information provided in the sections and appendices of this plan.

1.3 PLAN DISTRIBUTION PROCEDURES

OXY USA Inc. - LA Basin is responsible for maintenance and distribution of the Plan. Distribution will be handled in the following manner:

- Distribution of the Plan is controlled by the number on the cover page. A distribution list is included in the Foreword to facilitate control.
- Company personnel who may be called upon to provide assistance during discharge response activities will have access to a copy of the plan for their use and training.
- Any person holding a copy of the Plan shall ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.
- Various regulatory agencies will also be distributed a copy of the Plan. The list of agencies is detailed in the Distribution List located in the Foreword.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

Annual Review/Update

OXY USA Inc. - LA Basin will coordinate the following plan review and update procedures:

- At least once each year, review and make appropriate revisions as required by operational or organizational changes.
- At least once each year, review and make appropriate revisions as required by changes in the names and telephone numbers detailed in Section 2.0.
- Review and make appropriate revisions as required by improved procedures or deficiencies identified during response team tabletop exercises or actual emergency responses.
- Coordinate the word processing, publication, and distribution efforts to complete the revisions and maintain the Plan.

Incorporation of Plan Revisions

Upon receipt of any revisions, the **Plan Holder** shall:

- Review and insert the revised pages into the Plan.
- Discard the obsolete pages.
- Record this action on the "Revision Record" page in the Foreword.

1.4 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

Agency Revision Requirements

The Company shall revise and resubmit changes to the United States Department of Transportation (DOT)/Pipeline and Hazardous Materials Safety Administration (PHMSA) Pipeline Response Plans Officer within 30 days of each change that would substantially affect the implementation of the response plan. Examples of changes in operating conditions that would cause a significant change to the Plan include:

Conditions Requiring Changes

- An extension of the existing pipeline or construction of a new pipeline in a response zone not covered by the previously approved plan.
- Relocation or replacement of portions of the pipeline which in any way substantially affect the information included in this Plan, such as a change in the Worst Case Discharge volume.
- A change in the type of oil handled, stored, or transferred that materially alters the required response resources.
- A change in the name of the Oil Spill Removal Organization (OSRO).
- A material change in capabilities of the OSRO that provide equipment and personnel.
- A change in emergency response procedures.
- A change in the Qualified Individual.
- A change in the NCP or an ACP that has significant impact on the equipment appropriate for response activities.
- Any other changes that materially affect the implementation of the Plan.
- As a result of post incident or drill evaluations.

DOT/PHMSA must be provided with two copies of such revisions. The Company must submit the DOT/PHMSA issued Facility Control Number with the changes (the PHMSA Control Number is listed in Figure 1.1). In addition to periodic updates, when applicable, the Facility will resubmit the response plan to DOT/PHMSA every five years from the last approval date of the Plan.

Except as provided above, amendments to the following do not require approval by DOT/PHMSA:

- Personnel and telephone number lists included in the Plan.
- OSRO(s) change which does not result in a material change in support capabilities.

1.5 REGULATORY COMPLIANCE

The development, maintenance, and use of this Plan implements company policy and addresses the following regulatory requirements and guidelines:

- Federal Oil Pollution Act of 1990: U.S. DOT Final Rule for Transportation Related On-shore Facilities (49 CFR Part 194).

The response zone has been reviewed for consistency with the following plans:

- National Contingency Plan (NCP)
- U.S. Environmental Protection Agency - Region 9, Regional Integrated Contingency Plan.
- U.S. Coast Guard - Sector Los Angeles - Long Beach Geographic Response Plan.

FIGURE 1.1

INFORMATION SUMMARY

GENERAL INFORMATION		
Pipeline Name:	OXY USA Inc. - LA Basin, Sansinena Pipeline (#1105)	
PHMSA OPID Number:	32602	
Owner Name:	Physical Address	Mailing Address
	OXY USA Inc. - LA Basin 153 Canada Sombre La Habra Heights, CA 90631	OXY USA Inc. - LA Basin 301 E. Ocean Blvd., Suite 300 Long Beach, CA 90802
24 Hour Emergency Contact Phone Number:	(562) 624-3452	
Qualified Individual:	Mark Kapelke 301 E. Ocean Blvd., Suite 300 Long Beach, CA, 90802 (562) 495-9348 (Office) (562) 577-9498 (24 Hr.) (b) (6) (Home)	
Alt. Qualified Individual:	Tony DeVito 20101 Goldenwest St. Huntington Beach, CA 92648 (714) 969-3270 (Office) (714) 329-3831 (24 Hr.) (b) (6) (Home)	
Telephone/FAX:	Additional telephone references are provided in Figure 2.2.	
Primary NAICS / SIC Code:	486110 / 4612	

FIGURE 1.1
INFORMATION SUMMARY (Cont'd)

GENERAL INFORMATION (Cont'd)	
<i>Determination of Significant and Substantial Harm (DOT/PHMSA):</i>	All sections of pipe within the single response zone identified in this plan are less than 6 5/8" in nominal outside diameter and less than 10 miles in length. However, the pipeline is located within a 1 mile radius of an environmentally sensitive area. Therefore, the single response zone is treated as if it is expected to cause significant harm.
<i>Operator Statement of "Significant and Substantial Harm":</i>	The Company's goal is to respond as quickly as possible to <u>all</u> uncontrolled releases of petroleum product, regardless of the source point location along the system. Based upon this goal, and the definitions provided in 49 CFR 194.103 (c)(4) & (5), the Company is compelled to consider all the active line sections listed in this section as capable of a release potentially causing "substantial harm".
PIPELINE LOCATION	
<i>States Traversed:</i>	California
<i>Response Zones:</i>	Detailed later in this Figure. Also see Figure 1.2
<i>County:</i>	Los Angeles
PHYSICAL DESCRIPTION - PIPELINE	
<i>General:</i> • OXY USA Inc. - LA Basin, Sansinena Pipeline is composed of three segments: ▪ A 6" diameter pipe that travels 2,826 feet from Site 3 to Site 5 ▪ A 6" diameter pipe that travels 8,130 feet from Site 5 to Site 11 ▪ A 4" diameter pipe that travels 7,594 feet from Site 11 to Site 8 • The Company operates under the rules and regulations of the Federal Energy Regulatory Commission (FERC), while conforming with the oil pipeline regulations of the Department of Transportation (49 CFR Parts 194 & 195). • This Plan is written in English and understood by personnel responsible for carrying out the plan.	

FIGURE 1.1**INFORMATION SUMMARY (Cont'd)****PHYSICAL DESCRIPTION - PIPELINE (Cont'd)*****Pipeline Specifications:***

The basic specifications of the pipeline are as follows:

- **Product Types:** Crude Oil
- **Pipe Detail:** 4 - 6"

Response Resources:

Facility spill mitigation procedures and response guidelines are provided in Section 3.0 for discharges that could result from any of the following scenarios:

- Explosions and/or Fire
- Line Break or Leak
- Abnormal Pipeline Operations
- Medical Emergency
- Earthquake, Tsunami, or Other Natural Disaster

These scenarios could result in the following discharge volume:

Response Zone	Discharge Scenario	Potential Oil Group	DOT/PHMSA Planning Volume
1 – Sansinena Field Response Zone	WCD	3	(b) (7)(F)

FIGURE 1.1**INFORMATION SUMMARY (Cont'd)****PHYSICAL DESCRIPTION - PIPELINE (Cont'd)*****Response Resources (Cont'd):***

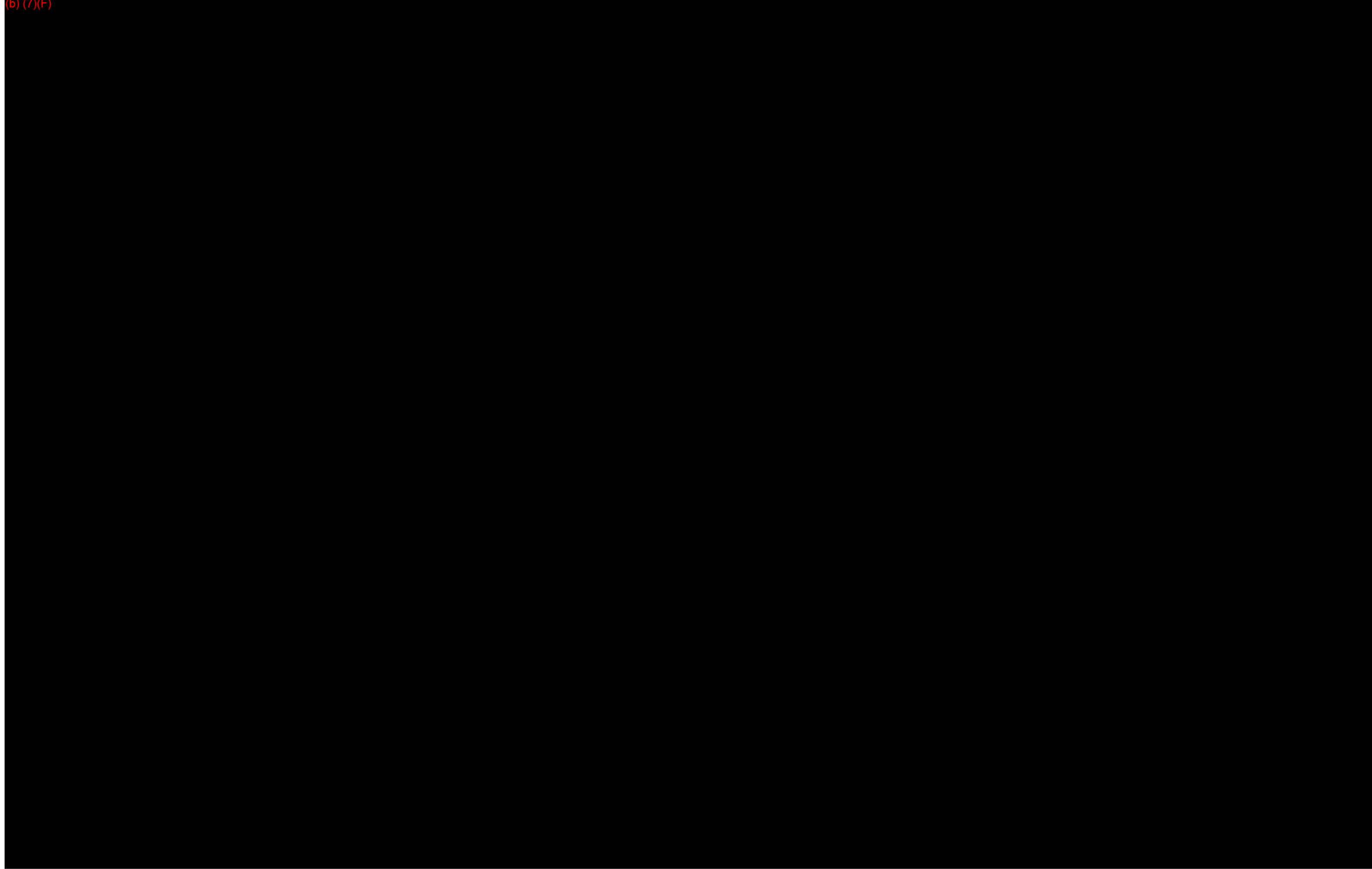
The worst case discharge volume is utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in 6 hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3). Appendix B of this Plan demonstrates a series of calculations and planning volume determinations based on guidance provided by the Department of Transportation (DOT) PHMSA regulations in 49 CFR 194.105. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios outlined in the table above.

FIGURE 1.1
INFORMATION SUMMARY (Cont'd)

RESPONSE ZONE INFORMATION					
General:					
The Sansinena Field Response Zone includes the following:					
SANSINENA FIELD RESPONSE ZONE					
Name of Pipeline	Type of Oil	Starting	Ending	County	State
6-Inch	Crude	Site 3	Site 5	Los Angeles	CA
6-Inch	Crude	Site 5	Site 11	Los Angeles	CA
4-Inch	Crude	Site 11	Site 8	Los Angeles	CA
Company personnel located at the Facility conduct all maintenance /operational functions and therefore a single Response Zone has been developed.					

FIGURE 1.2
AREA MAP

(b) (7)(F)



2.0 NOTIFICATION PROCEDURES

This section is a guide for notification procedures that should be implemented immediately after discovering a discharge incident and if possible, securing the source. Internal and external notifications are described separately for clarification purposes only. All notifications are of extreme importance and must be completed in a timely manner. Internal Notification References are included in Figure 2.2.

2.1 INTERNAL NOTIFICATION

The following internal notifications should be made for each emergency incident to the extent that the incident demands (telephone reference is provided in Figure 2.2). In no event shall notification be delayed because the immediate supervisor is inaccessible. Authorization is given to bypass management levels if necessary to provide timely notification to appropriate management. A complete description of typical internal notification responsibilities are fully detailed in Section 3.1 and are summarized as follows:

First Responder

The person that first identifies an incident is known as the **First Responder**. Upon discovery of the incident, the First Responder shall immediately:

- Contact the OXY Supervisor nearest the incident and provide the basic incident information.
- Implement initial response actions to ensure the safety of individuals and to protect the environment (if it can be done safely).
- If unsure of the safety of the response actions, the First Responder shall remain in a safe area and monitor the incident until additional resources arrive.

Person in Charge (PIC)

Upon notification of the incident by the First Responder, the OXY Supervisor nearest the incident becomes the Person in Charge (PIC). The PIC shall immediately:

- Notify the OXY Dispatcher and provide basic incident information.
- Respond to the incident and assess the situation.
- Once on-scene, the PIC shall initiate emergency response actions.

OXY Dispatcher

Upon notification of the incident by the PIC, the OXY Dispatcher shall:

- If required, immediately contact fire, paramedics, police, etc.
- Follow the established Dispatcher incident notification procedures.
- Contact the Incident Commander for further instructions.

FIGURE 2.1**INTERNAL NOTIFICATION SEQUENCE**

(Phone references are provided in Figures 2.2 and 2.5.)

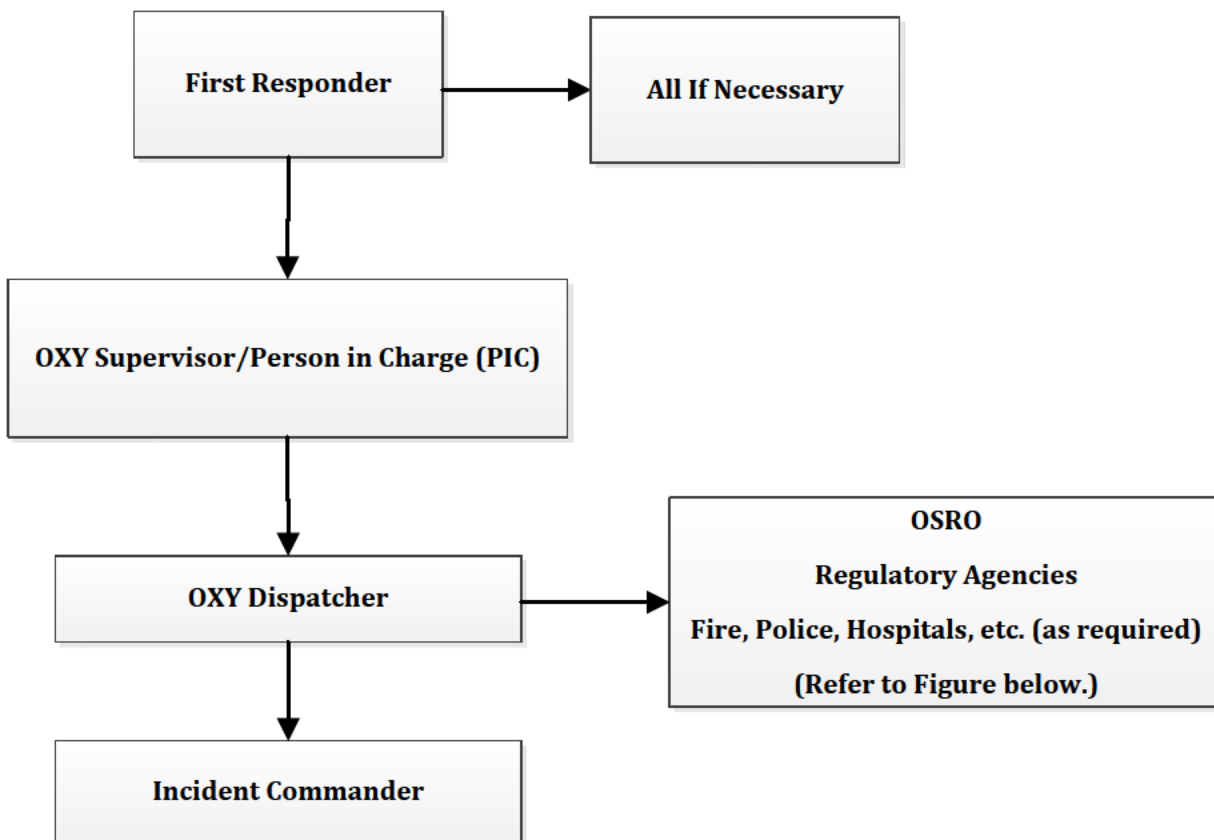


FIGURE 2.2
INTERNAL NOTIFICATION REFERENCES

INTERNAL NOTIFICATIONS					
POSITION/TITLE	NAME	LOCATION	OFFICE	HOME	OTHER
Qualified Individual	Mark Kepelke	Long Beach, CA	(562) 495-9348	(b) (6)	(562) 577-9498 *Cell
Alternate Qualified Individual	Tony DeVito	Huntington Beach, CA	(714) 969-3270		(714) 329-3831 *Cell

* Denotes 24-Hr. availability.

FIGURE 2.2**INTERNAL NOTIFICATION REFERENCES (Cont'd)**

INTERNAL NOTIFICATIONS			
POSITION/TITLE	NAME	OFFICE	SECONDARY
OXY Dispatch	OXY Dispatch	(562) 624-3452	(562) 624-3453
Production Coordinator	Monte Carter	(562) 697-7603	(714) 231-6352 (24 Hr.)
Assistant Coordinator	Emilio Rodriguez	(562) 697-7603	(562) 665-9255 (24 Hr.)
Operations Superintendent	Tony DeVito	(714) 969-3270	(714) 329-3831 (24 Hr.)
Manager Operations	Mark Kapelke	(562) 495-9348	(562) 577-9498 (24 Hr.)
Facilities Engineer	Tamer Ghobrial	(562) 495-9326	(562) 714-4652 (24 Hr.)
HES Representative	Clint Harris	(562) 624-3311	(562) 256-4752 (24 Hr.)
Risk Coordinator	Justin Peters	(562) 624-3274	(562) 256-4795 (24 Hr.)
General Manager	James Eastlack	(562) 495-9345	(562) 252-5990 (24 Hr.)
Operator	Francisco Medina	(562) 624-3452	(562) 665-9252 (24 Hr.)
Operator	Javier Orozco	(562) 624-3452	(562) 665-1164 (24 Hr.)
Operator	John Mitchell	(562) 624-3452	(323) 810-9214 (24 Hr.)
Operator	Jimmy Le	(562) 624-3452	(562) 665-0201 (24 Hr.)

FIGURE 2.2
INTERNAL NOTIFICATION REFERENCES

EMERGENCY CONTRACTORS			
COMPANY	NAME	OFFICE	OTHER
Patriot Environmental Services	Luis Fukotake	(562) 244-2222	(800) 624-9136 (24 Hr.)
ECI	Wayne Scanlan	(310) 961-1078	(310) 354-9999 (24 Hr.)
Goldsmith Construction	Wayne D. Mogg	(562) 244-1129	(562) 493-7551 Disp.
Goldsmith Construction	Rick Steinbeck	(562) 577-2943	(562) 493-7551 Disp.
Doty Bros. Construction Co.	Allen Barber	(562) 254-7445	(562) 864-6566 (24 Hr.)
Doty Bros. Construction Co.	Henry Barber	(562) 254-9506	(562) 864-6566 (24 Hr.)
Avanti Environmental, Inc.	Bruce Hamlin	(714) 730-3320 x508	(714) 715-1330 Cell

Section 2.0

Notification Procedures

FIGURE 2.3

NOTIFICATION DATA SHEET					
Date of Incident: _____			Time of Incident: _____		
INCIDENT DESCRIPTION					
Reporter's Full Name: _____			Position: _____		
Day Phone Number: _____			Evening Phone Number: _____		
Company: <u>OXY USA Inc. - LA Basin,</u>			Organization Type: _____		
<u>Sansinena Pipeline</u>			_____		
Facility Address: <u>153 Canada Sombre</u>			Owner's Address: <u>OXY USA Inc. - La Basin,</u>		
<u>La Habra Heights, CA 90631</u>			<u>Sansinena Pipeline</u>		
_____			<u>301 E. Ocean Blvd., Suite 300</u>		
_____			<u>Long Beach, CA 90802</u>		
_____			_____		
Facility Latitude: _____			Facility Longitude: _____		
Incident Address/Location: _____					
(if not at Facility): _____					
On-Scene Weather Conditions: _____					
Responsible Party's Name: _____			Phone Number: _____		
Responsible Party's Address: _____					
Source and/or cause of incident: _____					

Nearest City: <u>La Habra Heights</u>					
County/Parish: <u>Los Angeles</u>		State: <u>California</u>		Zip code: <u>90631</u>	
Section: _____	Township: _____	Range: _____	Borough: _____		
Distance from City: _____		Unit of Measure: _____	Direction from City: _____		
Container Type: _____		Container Storage Capacity: _____	Unit of Measure: _____		
Facility Oil Storage Capacity: _____		Unit of Measure: _____			
Were Materials Discharged? _____ (Y/N) Confidential? _____ (Y/N)					
CHRIS Code	Total Quantity Released	Unit of Measure	Water Impact (YES or NO)	Quantity into Water	Unit of Measure
RESPONSE ACTION(S)					
Action(s) taken to Correct, Control, or Mitigate Incident: _____					

Number of Injuries: _____			Number of Deaths: _____		
Evacuation(s): _____ (Y/N) Number Evacuated: _____					
Was there any damage? _____ (Y/N) Medium Affected: _____					
Description: _____					
More Information about Medium: _____					

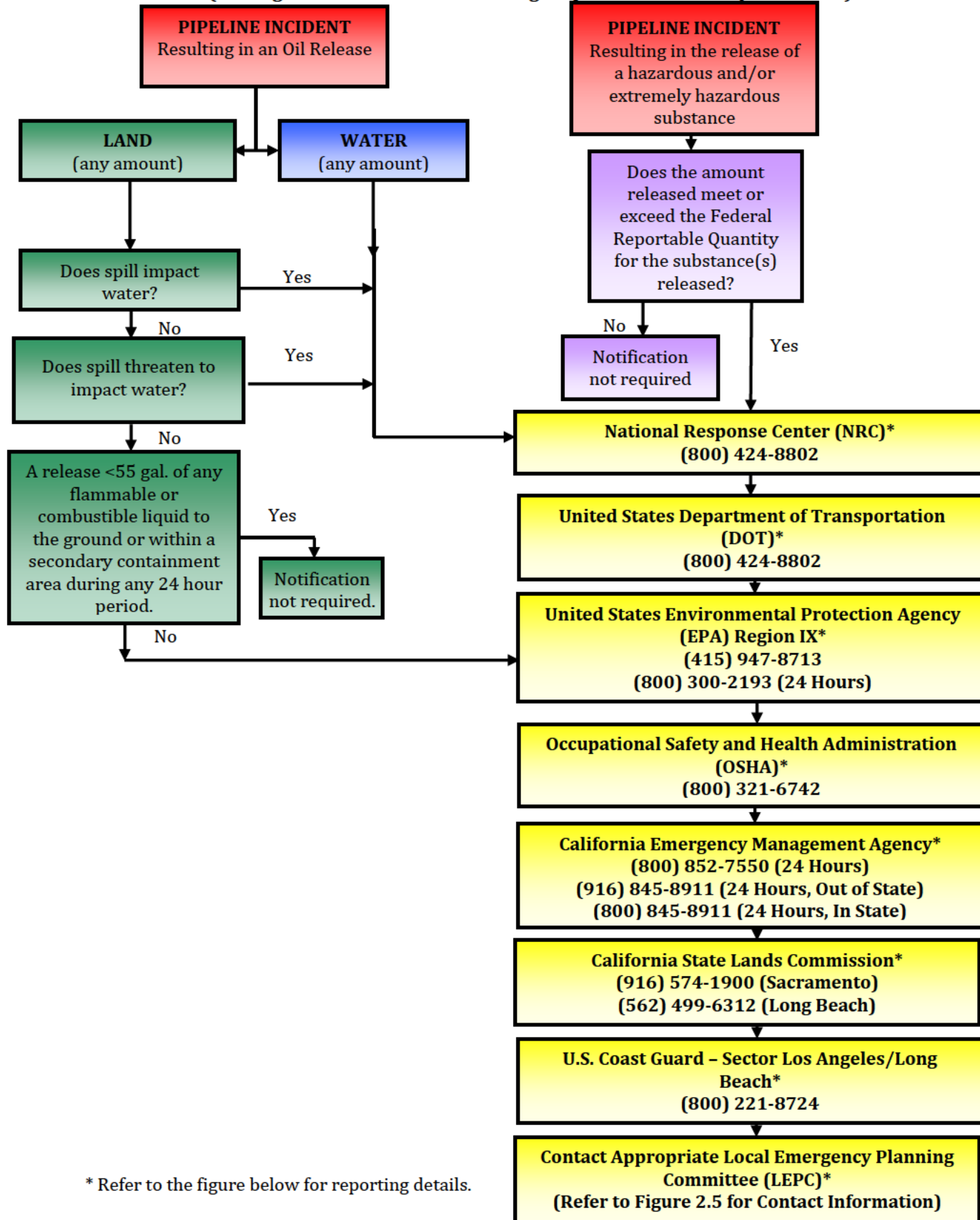
CALLER NOTIFICATIONS					
National Response Center (NRC): <u>1-800-424-8802</u>					
Additional Notifications (Circle all applicable): <u>USCG</u> <u>EPA</u> <u>State</u> <u>Other</u>					
Describe: _____					
NRC Incident Assigned No: _____					
ADDITIONAL INFORMATION					
Any information about the incident not recorded elsewhere in this report: _____					

Meeting Federal Obligations to Report? _____ (Y/N)			Date Called: _____		
Calling for Responsible Party? _____ (Y/N)			Time Called: _____		
NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION.					

FIGURE 2.4

EXTERNAL NOTIFICATION FLOWCHART

(See Fig. 2.5 for more details on Agency Notification Requirements)



* Refer to the figure below for reporting details.

2.2 EXTERNAL NOTIFICATIONS

The external notifications should be made in accordance with federal, state, and local regulations for all reportable discharges. A "Notification Data Sheet" (Figure 2.3) should be used to facilitate documentation and data retrieval for these notifications. The Oxy Dispatcher shall ensure that the "Required Notifications" and "Other Notifications" are made as the situation demands. Telephone reference is provided in Figure 2.5 and the typical reporting flowchart is demonstrated in Figure 2.4.

SPILL REPORTING GUIDELINES

- Never include information which has **not been verified**.
- **Never speculate** as to the cause of an incident or make any acknowledgment of liability.
- **DOCUMENT:**
 - Agency notified
 - Time agency notified
 - Person notified
 - Content of message given
- **DO NOT DELAY** reporting due to incomplete information.

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS		
NATIONAL RESPONSE CENTER		
National Response Center c/o United States Coast Guard (G-OPF) 2100 2 nd Street Southwest Room 2611 Washington, D.C. 20593-0001	(800) 424-8802 * (202) 267-2675 * (202) 267-2165 (Fax)	REPORTING REQUIREMENTS TYPE: For all spills that impact or threaten to impact navigable water or for any failure in a pipeline system that: 1. Caused a death or a personal injury requiring hospitalization 2. Resulted in either a fire or explosion not intentionally set by the carrier. 3. Caused estimated damage to the property of the carrier or others, or both, of a total of \$50,000 or more. 4. Resulted in the pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water or adjoining shoreline, causing a discoloration or emulsion beneath the surface of the water or upon adjoining shorelines. 5. In the judgment of the carrier, was significant even though it did not meet the criteria of any other subparagraph of this paragraph. NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ. VERBAL: Immediate notification required (within 2 hours). WRITTEN: Not required

* 24-Hour Number

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS		
DEPARTMENT OF TRANSPORTATION		
US Dept. of Transportation Facility Response Plan Officer Office of Pipeline Safety PHP-5 Pipeline and Hazardous Materials Safety Administration 1200 New Jersey Avenue S.E. Room E22-321 Washington, DC 20590-0001	(800) 424-8802* (202) 267-2675* (202) 267-2165 (Fax)	REPORTING REQUIREMENTS TYPE: In addition to the reporting of accidents to the NRC, a written accident report (Form PHMSA F7000-1, provided in Appendix C) must be submitted for releases resulting in any of the following: 1. Explosion or fire not intentionally set by the operator. 2. Release of 5 gallons or more of hazardous liquid or carbon dioxide, except that no report is required for a release of less than 5 barrels resulting from a pipeline maintenance activity if the release is: a. Not one described under the NRC's reporting conditions. b. Confined to Company property or pipeline right-of-way; and c. Cleaned up promptly. 3. Death of any person. 4. Personal injury necessitating hospitalization. 5. Estimated property damage, including cost of cleanup and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000. VERBAL: Call to the NRC meets the required verbal notification under DOT reporting requirement. WRITTEN: As soon as practicable, an accident meeting any of the above criteria must be reported on DOT Form 7000-1 (included in Appendix F - Miscellaneous Forms). The report must be sent to DOT no later than 30 days after the release. Changes or additions to the original report (DOT Form 7000-1) must file a supplemental report within 30 days.

* 24-Hour Number

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS		
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 9		
75 Hawthorne Street San Francisco, CA 94105	(415) 947-8713 (800) 300-2193 (24 Hr.)	REPORTING REQUIREMENTS (40 CFR 300.300) TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline. VERBAL: Notification to the EPA is typically accomplished by the call to the NRC. WRITTEN: Per SPCC requirements, a written report must be submitted within 60 days for a spill in excess of 1,000 gallons (approximately 24 Bbls) in a single event or two spill events within a twelve month period into or upon navigable waters of the United States or adjoining shorelines. The written report should contain all of the elements listed in 40 CFR 112.4(a). As per RCRA regulations, a written report on the incident must be submitted to the Regional Administrator within 15 days from the date of the incident. 1. Name, address, and telephone number of the owner or operator; 2. Name, address, and telephone number of the Facility; 3. Date, time, and type of incident (e.g., fire, explosion); 4. Name and quantity of material(s) involved; 5. The extent of injuries, if any; 6. An assessment of actual or potential hazards to human health or the environment, where this is applicable; and 7. Estimated quantity and disposition of recovered material that resulted from the incident.

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS		
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)		
200 Constitution Avenue Washington, D.C. 20210	(800) 321-6742	REPORTING REQUIREMENTS (29 CFR 1904.39) TYPE: Fatality from a work related incident or the inpatient hospitalization of three (3) or more employees as a result of a work related incident. VERBAL: Immediately. WRITTEN: As requested by the Agency.
CALIFORNIA EMERGENCY MANAGEMENT AGENCY (CAL EMA)		
3650 Schriever Avenue Mather, California 95655	(800) 852-7550 (24 Hours) (916) 845-8911 (24 Hours, Out of State) (800) 845-8911 (24 Hours, In State)	REPORTING REQUIREMENTS TYPE: Notification is required if any of the following occurred: - Any amount into or threatening state waters - inland, marine, or groundwater. - Any amount into a storm drain. - Any amount onto city and county streets. - Any amount onto state highways and freeways. - Any amount onto land (except for certain San Joaquin Valley oil fields). 5 barrels or more uncontained in certain San Joaquin Valley oil fields. 10 barrels or more contained in certain San Joaquin Valley oil fields. - Crude oil release of more than five barrels from a pipeline or flow line in a rural area –if no threat to state waters. - Fire or explosion; or - Bodily injury or death to any person VERBAL: Immediately WRITTEN: As may be requested by the agency

FIGURE 2.5**EXTERNAL NOTIFICATION REFERENCES (Cont'd)**

REQUIRED NOTIFICATIONS		
CALIFORNIA STATE LANDS COMMISSION		
100 Howe Avenue, Suite 100 South Sacramento, CA 95825-8202	(916) 574-1900 (Sacramento) (562) 499-6312 (Long Beach)	REPORTING REQUIREMENTS TYPE: Any spill on state lands VERBAL: Immediately WRITTEN: As may be requested by the agency
LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) REGION I (LOS ANGELES COUNTY)		
18239 W. Soledad Canyon Road Canyon Country, CA 91351	(661) 298-5283	REPORTING REQUIREMENTS (40 CFR 300.300) TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline. VERBAL: Immediately. WRITTEN: As the agency may request.

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES

OTHER POTENTIAL REQUIRED NOTIFICATIONS	
U.S. COAST GUARD SECTOR LOS ANGELES/LONG BEACH	
1001 S. Seaside Ave., Bldg. 20 San Pedro, CA 90731	(310) 521-3600 (Primary) (800) 221-8724 (Emergency)
CALIFORNIA ONE CALL SYSTEM	
Underground Service Alert of Southern California P.O. Box 77070 Corona, CA 92877	(951) 808-8100 (951) 808-8101 (Fax) www.digalert.org
LA HABRA HEIGHTS FIRE DEPARTMENT	
1245 Hacienda Road La Habra, CA 90631	(562) 697-6731 (562) 697-6732
LOS ANGELES COUNTY SHERIFF'S DEPARTMENT	
150 North Hudson Ave. City of Industry, CA 91744	911 (626) 330-3322 (Non Emer.)
PRESBYTERIAN HOSPITAL	
12401 Washington Blvd. Whittier, CA 90603	(562) 698-0811
INTERNATIONAL BIRD RESCUE	
444 West Ocean Blvd. Ste. 777 Long Beach, CA 90802	(562) 912-7055
COLE-SCHAEFER AMBULANCE	
15426 East Gale Avenue Hacienda Heights, CA 91745	(626) 961-0460

FIGURE 2.6

OIL SPILL REMOVAL ORGANIZATIONS (UNDER CONTRACT/AGREEMENT)			
COMPANY	LOCATION	OFFICE/ ALTERNATE	RESPONSE TIME
Marine Spill Response Corporation (MSRC)	3300 E. Spring St. Long Beach, CA 90806	(800) 259-6772 (Emergency) (703) 326-5600 (Non-Emergency) (562) 981-7600 (local)	4 Hours Max.
Patriot Environmental Services	508 E. E St # A Wilmington, CA 90744	(800) 624-9136 (24 Hr.) (562) 244-2222 (Luis Fukotake)	4 Hours Max.

3.0 RESPONSE ACTIONS

3.1 INITIAL RESPONSE ACTIONS

Initial response actions are those taken by local personnel immediately upon becoming aware of a discharge or emergency incident, before the Local Response Team (described in Section 4.0) is formed and functioning. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall response operation.

The pages that follow discuss initial response actions for a variety of emergencies that have the possibility of occurring. These emergencies are discussed in the order listed below:

- Explosions and/or Fire
- Line Break or Leak
- Abnormal Pipeline Operations
- Medical Emergency
- Earthquake, Tsunami, or Other Natural Disaster

It is important to note that these actions are intended only as guidelines. The appropriate response to a particular incident may vary depending on the nature and severity of the incident and on other factors that are not readily addressed. Note that, without exception, personnel and public safety is first priority.

The first Contract Operator on scene will function as the person-in-charge until relieved by Oil Spill Response Organization (OSRO) an authorized supervisor who will assume the position of Incident Commander (IC). For response operations within the control of the Contract Operator, the role of IC will be assumed and retained by the Contract Operator under the direction of Company Management will typically be assumed and retained by Company Management.

The person functioning as IC during the initial response period has the authority to take the steps necessary to control the situation and must not be constrained by these general guidelines.

INITIAL RESPONSE ACTIONS - SUMMARY

- Assume responsibility and control of the situation.
- Assess the incident - Personnel and Public Safety is first priority. Provide immediate aid to the injured.
- Eliminate sources of ignition.
- Isolate the source of a discharge, eliminate, or minimize further flow and initiate containment.
- Conduct immediate notification to activate the alarm system and mobilize the Spill Management Team or Local Response Team, Fire Department, Oil Spill Response Team, or Hazmat Team as necessary.
- Notify federal/state/local agencies and other contacts per notification tables in Section 2 (NRC, OSC, etc.).
- Control the area - Evacuate as needed and prevent personnel from entering the area until trained responders have arrived.

In addition to the potential emergency events outlined in this section, the Company has identified several “abnormal operations” that could be expected in the pipeline. The pipeline has defined the events and established procedures to identify, eliminate or mitigate the threat of worst case discharge due to these events.

Section 3.0

Response Actions

3.1 INITIAL RESPONSE ACTIONS (Cont'd)

FIRST RESPONDER

The person that first identifies an incident is known as the **First Responder**. Upon discovery of the incident, the First Responder shall immediately:

- ____ Contact the OXY Supervisor nearest the incident and provide the basic incident information (location, time, nature of incident, extent of injuries, amount or volumes, any emergency response actions in progress, etc.) and request additional emergency response resources required.

***Note:** If the First Responder is in doubt of the significance or severity of an incident, err to the conservative side and immediately notify an OXY Supervisor.*

- ____ Implement initial response actions to ensure the safety of individuals and to protect the environment (if it can be done safely).
- ____ If unsure of the safety of the response actions, the First Responder shall remain in a safe area and monitor the incident until additional resources arrive.

PERSON IN CHARGE (PIC)

Upon notification of the incident by the First Responder, the OXY Supervisor nearest the incident becomes the Person in Charge (PIC). The PIC shall immediately:

- ____ Notify the OXY Dispatcher and provide basic incident information (location, time, nature of incident, extent of injuries, amount or volumes, any emergency response actions in progress, etc.) and request any additional emergency response resources.
- ____ Respond to the incident and assess the situation.
- ____ Once on-scene, the PIC shall initiate emergency response actions using the following incident priorities:

Incident Priorities

- a. Safety of employees and public.
 - b. Protection of the environment (isolation of spill source, protection of storm drains, etc.).
 - c. Protection of public or private property (nearby businesses, boats, roads, etc.).
 - d. Protection of OXY assets (equipment, land, etc.).
- ____ The PIC shall remain in charge of the incident until formally relieved by the Incident Commander.

*** Reporting exceptions for onshore and platform Emmy operations only:**

1. **The PIC may call 911 directly in life threatening medical situations.** If this occurs, the PIC is to immediately notify OXY Dispatcher after the 911 call.
2. For onshore locations, the PIC may call out land based spill response resources (such as vacuum trucks, absorbents, etc.).

Section 3.0**Response Actions****3.1 INITIAL RESPONSE ACTIONS (Cont'd)****OXY DISPATCHER**

Upon notification of the incident by the PIC, the OXY Dispatcher shall:

- ____ If required, immediately contact fire, paramedics, police, etc.
- ____ Follow the established Dispatcher incident notification information: location, time, nature of incident, extent of injuries, amount or volumes, any emergency response actions in progress, and any additional emergency response resources that may be required.
- ____ Contact the Incident Commander for further instructions. The OXY Dispatcher must receive Incident Commander approval and direction to contact regulatory agencies for reporting and incident, call out spill response resources, and/or initiate the OXY Incident Command System (ICS).

INCIDENT COMMANDER (IC)

Upon notification by the OXY Dispatcher and based on the incident information provided:

- ____ The Incident Commander may direct the OXY Dispatcher to initiate some or all of the following actions:
 - a. Call out additional emergency response resources.
 - b. Make regulatory agency notifications.
 - c. Activate all or a portion of the OXY ICS.
- ____ Additional IC actions may include:
 - a. Notify OXY Management, PIO, and Legal Counsel of the incident.
 - b. Formally take command of the incident by notifying the PIC.
 - c. Ensure all responders are following the above incident priorities.
 - d. Establish an Emergency Operations Center.
 - e. Establish a Unified Command structure.

LOCAL RESPONSE TEAM

- ____ Assigned personnel will immediately respond to a discharge, as the situation demands.
- ____ Perform response/clean-up operations as directed or coordinated by the Incident Commander (see Appendix D for roles and responsibilities of each team member).
- ____ Assist as directed at the spill site.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST

Remember: Without Exception, Personnel Safety Is The First Priority. Excessive Exposure To The Vapor And Liquid Stages Of The Spilled Product Should Be Avoided.

INITIAL RESPONSE

Priorities:

- ____ Take appropriate action to protect life and ensure the safety of personnel.

The success or failure of an operation often depends on the first contract person on-scene's ability to take command of the situation and implement the *Oil Spill Response Plan*.

Before taking ANY action (other than calling for assistance), if the emergency may involve the release of a hazardous material, you MUST also be trained and familiar with the appropriate considerations and processes.

As a first responder to the site of an apparent emergency, your initial objective is **site management**. Don't become part of the problem; set the foundation for proper ongoing site management.

Isolate the area; deny entry.

If the integrity of the line is in question, contact the OXY Supervisor nearest the incident and implement the *Oil Spill Response Plan*.

- ____ Take appropriate action to protect life and ensure the safety of personnel.
- ____ Rescue in the HOT Zone: Attempt **only** if you are trained to the Haz Mat Tech level and these three conditions are met:
 - a. adequate personal protective equipment is available, **and**
 - b. sufficient time apparently exists to complete without endangering your own life, **and**
 - c. there is an adequate number of emergency response personnel present.

If possible, it is best to have professional emergency response personnel perform rescue.

- ____ Evacuation involves three steps:
 - a. notify evacuees to gather in a safe, central area, moving uphill and/or at a right angle to any migrating liquid or vapor, and if possible, upwind.
 - b. if needed, provide transportation to move evacuees to a reasonably safe area.
 - c. care for evacuees: provide water, food, clothing, shelter, and information.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

INITIAL RESPONSE (Cont'd)

Emergency response agencies will generally perform evacuation.

- ____ Administer first aid.

Perform other First Aware/First Responder activities:

- ____ Emergency alarms/signals must be distinctive, timely and appropriate to the site; personnel must be trained in the recognition and response to the alarms/signals.
- ____ Facility evacuation plans displayed on employee notice boards must include:
 - a. emergency contact numbers (local emergency response agencies and federal agencies)
 - b. facility drawing denoting exits and corridor traffic flow direction arrows and the designated meeting place
- ____ Take authorized action to protect property, including prevention of environmental damage, especially the contamination of water.
 - a. stop ongoing leaks
 - b. stabilize and contain the situation
- ____ Collect information and notify the OXY Supervisor nearest the incident (see Figure 2.2).
- ____ If roads or other transportation routes are present in the affected area, assist the Sheriff or local emergency officials with halting traffic.

All personnel are reminded that outsiders other than emergency services will not be allowed in the response zone during the time of an emergency, and that no statements will be issued to the media or other interested parties except by designated Company Management. Be courteous with media representatives and direct them to the designated spokesman.

FIGURE 3.1**SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)****EXPLOSIONS AND/OR FIRE, SPECIFIC RESPONSE****Fire, Explosion or Gas Leak**

If the situation is significant or represents a continuing or growing threat to people or facilities:

- ____ Contact the OXY Dispatcher and request emergency response resources as required (Fire Department, paramedics, Life Guards, etc.).
- ____ If warranted, sound location alarm and facilitate a safe assembly to the designated area. Attend to all medical needs and assure all personnel are accounted for.
- ____ If safe: Limit the spread of the problem through system isolation, location shut-in, etc.
- ____ Identify and secure the no-entry zone if needed.
- ____ Prepare for arrival of emergency response personnel.

FIRE / EXPLOSIONS

FIGURE 3.1**SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)****LINE BREAK OR LEAK, SPECIFIC RESPONSE**

- ____ Notify the OXY Supervisor nearest the incident.
- ____ PIC will notify the OXY Dispatcher and provide basic incident information (location, time, nature of incident, extent of injuries, amount or volumes, any emergency response actions in progress, etc.) and request any additional emergency response resources.
- ____ Qualified personnel should use Combustible Gas Indicator, O₂ meter, proper colormetric indicator and/or other air sampling measurements to ensure that areas are safe to enter for continued response operations. Refer to Safety Volume for further guidance.
 - Mitigate spreading of the product, as the situation demands. Potential containment strategies include:
 - Earthen dike/berm
 - Ditching
 - Spreading sorbent material over the spill
 - Prevent the spill from entering the waterways, sewer, etc. to the greatest extent possible.
- ____ If the product enters water and a safe operating environment exists, try to contain by:
 - Deploying spill response equipment (facility and/or contract) to prevent/ mitigate spill impact (spreading of spill).
 - Attempting to divert/contain the spill:
 - In quiet area or low current areas of the water.
 - Away from strong winds or in areas that could be affected by change in wind direction.
 - Away from areas of hazard to public, property water intakes, etc.
- ____ Inform local operators such as utilities, telephone company, railway.
- ____ Review socio-economic and environmentally sensitive areas identified in Section 6 and the ACP. Determine which of these may be threatened by the spill and direct the response operation to these locations. Initiate protection and recovery actions.
- ____ Determine the direction and expected duration of spill movement (see maps in Section 6).
- ____ Make all necessary repairs.
- ____ Clean up spilled product to eliminate any possible environmental problems. Be alert for underground cables.
- ____ Return the line to service when repairs are complete.
- ____ Complete follow-up and written reporting, as the situation demands.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

ABNORMAL PIPELINE OPERATIONS

- ____ If operating design limits have been exceeded (increase or decrease pressure or flow) and no emergency condition exists, stop operations and immediately investigate the pipeline.
- ____ Verify whether a true safety problem, equipment malfunction, or operator error is present.
- ____ If the situation is due to malfunctioning equipment, can transfer operations can continue safely? If yes, then bypass the faulty equipment until the completion of the transfer and make appropriate repairs. **Note: In all cases, safety to operations, the general public, and property will govern actions taken.**
- ____ If the transfer can not continue safely, make appropriate repairs before continuing operations. **Note: Corrective action will only be done by qualified personnel to perform the type of work involved.**
- ____ Monitor affected systems until normal operations are resumed.
- ____ Inform local operators such as utilities, telephone, and/or railway.
- ____ Complete follow-up and written reporting, as the situation demands.

FIGURE 3.1**SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)****MEDICAL EMERGENCY, SPECIFIC RESPONSE**

- ____ Apply appropriate first aid for both injury and shock, exercising care not to cause further injury.
- ____ If victim is unconscious and not breathing, immediately apply artificial respiration (if trained in CPR) and continue without interruption until natural breathing is restored or until relieved by another CPR-trained individual or other qualified medical personnel.
- ____ Call for ambulance or other medical evacuation resources, if appropriate.
- ____ Notify hospital of patient arrival and extent of injury.
- ____ Notify victim's immediate family.
- ____ Complete follow-up and written reporting, as the situation demands

FIGURE 3.1**SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)****EARTHQUAKE, TSUNAMI, OR OTHER NATURAL DISASTER**

- ____ If possible, sound location alarm and facilitate to the designated assembly area. Upon assembly, communicate plan and initiate assessment of injuries, missing personnel, etc.
- ____ For an earthquake: Be prepared for aftershocks and limit exposure accordingly.
- ____ If safe: Perform location assessment and personnel search.
- ____ If required: Shut-in and isolate as many systems as possible.
- ____ Contact Dispatch
 - a. emergency contact numbers (local emergency response agencies and federal agencies)
 - b. Await further instructions from Dispatch.
- ____ Prepare for extended on-site habitation if appropriate.

NATURAL DISASTER

FIGURE 3.2

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)	
The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. <u>The information is intended for guideline purposes only.</u>	
PRODUCTS	Crude Oil
HAZARD IDENTIFICATION / RECOGNITION	
GUIDE NO. 128	DANGERS • HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. • Vapors may form explosive mixtures with air. • Vapors may travel to source of ignition and flash back. • Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). • Vapor explosion hazard indoors, outdoors or in sewers. • Those substances designated with a "P" may polymerize explosively when heated or involved in a fire. • Runoff to sewer may create fire or explosion hazard. • Containers may explode when heated. • Many liquids are lighter than water. • Substance may be transported hot.
HEALTH	
• Move victim to fresh air. Call 911 or emergency medical service. • Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. • Remove and isolate contaminated clothing and shoes. • In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. • Wash skin with soap and water. • Keep victim warm and quiet. • Ensure that medical personnel are aware of the material(s) involved, and take precautions.	
PUBLIC SAFETY	
• Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions. • Keep unauthorized personnel away. • Stay upwind. • Keep out of low areas. • Ventilate closed spaces before entering.	
EVACUATION	Large Spill • Consider initial downwind evacuation for at least 300 meters (1,000 feet). Fire • If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.
Information provided by the Emergency Response Guidebook 2012.	

3.2 SAFETY AWARENESS

Personal Protective Equipment (PPE)

The following represents OSHA/EPA designated PPE levels for responding to emergencies, post emergency cleanup sites, and/or Temporary Storage and Disposal (TSD) sites. The responder's PPE should be chosen based on his/her level of training and assigned job duties.

Personal Protective Equipment (PPE)	
<u>LEVEL A</u> - Self Contained Breathing Apparatus (SCBA) (worn inside suit) - Encapsulated Chemical Protective Suit - Chemical Protective Gloves - Chemical Protective Boots - Hard Hat	<u>LEVEL B</u> - SCBA (worn outside suit) - Chemical Protective Suit w/Hood - Chemical Protective Boots - Chemical Protective Gloves - Hard Hat
<u>LEVEL C</u> - Air Purifying Respirator (APR) - APR ½ Face / Full Face - Hard Hat - Glasses (worn with ½ face APR) - Chemical Protective Boots - Chemical Protective Gloves - Chemical Protective Suit/Tyvek	<u>LEVEL D</u> - Hard Hat - Safety Glasses - Work Uniform / Clothes - Leather Gloves - Safety Boots
<u>MODIFIED LEVEL C</u> Same as Level C except no APR requirements.	

3.3 EMERGENCY MEDICAL TREATMENT AND FIRST AID

On-site emergency medical response requires the same rapid assessment of the patient as any other situation, but requires the responders to be aware of other considerations that may affect the way they handle the patient. These considerations include the following:

- The potential for contamination of the patient, responders, and equipment should be addressed. Responders should arrange to treat all patients **AFTER** the injured party has been decontaminated according to the Site Safety and Health Plan.
- Site personnel should make the initial assessment of the patient and determine the severity of the injury/illness.
- If the treatment needed is critical care or "life saving" treatment, rapid decontamination of the injured/ill party should be started. Refer to the Site Safety and Health Plan for steps to be taken in an "abbreviated" decontamination for medical treatment.
- The need for full decontamination should be carefully weighed against the need for prompt medical treatment.**

3.3 EMERGENCY MEDICAL TREATMENT AND FIRST AID (Cont'd)

- The ambulance responding to medical emergencies shall be contacted as soon as possible and instructed exactly where to respond when needed and the nature of the contaminant. Telephone reference is provided in Figure 2.5.
- Material Safety Data Sheet (MSDS) information will be available from the Incident Commander and should be provided to medical personnel to alert them of decontamination requirements.
- If emergency medical treatment is needed, the Incident Commander, or his designated representatives, will request assistance from trained medical personnel.

4.0 RESPONSE TEAMS

4.1 INTRODUCTION

The Company utilizes the Incident Command System (ICS) to manage emergency response activities. The ICS is a management tool that is readily adaptable to very small incidents as well as those of considerable significance. ICS shall be implemented for all discharge incidents. The staffing levels required to meet the specific needs of the incident will be based on its size and severity.

The first response to a discharge originating from this operation will be provided by the local responders. In the event that the response operation is beyond the capability of the Contract Operator, the Oil Spill Removal Organization will activate the contract Spill Management Team.

A detailed explanation of the Incident Command System and the roles and responsibilities for primary members of the Spill Management Team are provided in Appendix D.

4.2 QUALIFIED INDIVIDUAL

It is the responsibility of the Qualified Individual (QI) or his/her designee to coordinate with the Federal On-Scene Coordinator (FOSC) and State On-Scene Coordinator (SOSC) throughout the response, if applicable.

Vital duties of the Qualified Individual (QI) include:

- Activate internal alarms and hazard communication systems to notify all Facility personnel and contract with required oil spill removal organizations (OSROs).
- Activate Company personnel and equipment.
- Obligate any funds required to carry out all required or directed oil spill response activities.
- Arrangements will be made to ensure that the Qualified Individual (QI) or the Alternate Qualified Individual (AQI) is available on a 24-hour basis and is able to arrive at the Facility in a reasonable time.
- The AQI shall replace the QI in the event of his/her absence and have the same responsibilities and authority.

4.3 LOCAL RESPONSE TEAM

The Contract Operator will function as the initial Incident Commander (IC) and person-in-charge until relieved by the Oil Spill Removal Organization who will then provide an Incident Commander, as applicable. For response operations within the control of the Contract Operator/Local Response Team (LRT), the role of IC will typically be assumed and retained by the Operator.

4.3 LOCAL RESPONSE TEAM (Cont'd)

The number of positions/personnel required to staff the LRT will depend on the size and complexity of the incident. The duties of each position may be performed by the IC directly or delegated as the situation demands. The IC is always responsible for directing the response activities and will assume the duties of all the primary positions until the duties can be delegated to other qualified personnel.

A complete functional ICS organization is shown in Figure D.1. The LRT should try to fill the necessary positions and request additional support from the Spill Management Team to fill/back up all the positions as the incident may dictate.

4.4 SPILL MANAGEMENT TEAM

For spill response operations outside the capabilities of the LRT, the QI or IC will determine the need for mobilization of the Spill Management Team (SMT). The members of the LRT will typically become members of the SMT.

The SMT, once fully staffed, is designed to cover all aspects of a comprehensive and prolonged incident response. The number of positions/personnel required to staff the SMT will depend on the size and complexity of the incident. During a prolonged response, additional personnel may be transferred in, and more than one level within the Team may be involved to sustain 24-hour operations.

Led by the Incident Commander, the SMT is composed of the following principal components:

- Command
- Finance
- Logistics
- Operations
- Planning

The SMT is staffed by specially trained personnel from various facility/corporate locations and various contract resources as the situation requires. The SMT organization chart is provided in Figure D.2; telephone reference is provided in Figure 2.2. Command and Unit Leader responsibilities are described in Section D.7.

5.0 RESPONSE PLANNING

5.1 INCIDENT ACTION PLAN

Emergency response activities are planned and coordinated through the use of an Incident Action Plan (IAP) which is developed for each Operational Period of a response by the Incident Management Team. For small responses, an ICS 201 (Incident Briefing Form provided in this Section), may be used as the IAP and, for all incidents, the ICS 201 will serve as the initial IAP.

For larger or more complex incidents a more complete IAP will be necessary. These IAP's are generally created through the completion and compilation of several standard ICS forms. These forms include, but are not limited to:

ICS FORM NUMBER	FORM TITLE	PREPARED BY*
201	Incident Briefing	Initial Response IC
None	ICS IAP Cover	Situation Unit Leader
202	Incident Objectives	Planning Section Chief
203	Organization Assignment List	Resources Unit Leader
204	Assignment List	Operations Section Chief & Resources Unit Leader
205	Incident Radio Communications Plan	Communications Unit Leader
206	Medical Plan	Medical Unit Leader
207	Incident Organization	Resources Unit Leader
209	Incident Status Summary	Incident Commander
214	Unit Log	Situation Unit Leader
218	Support Vehicle Inventory	Ground Support Unit Leader
220	Air Operations Summary	Air Operations Branch Director
232	Resources at Risk Summary	Situation Unit Leader
SSP	Site Safety Plan	Safety Officer

* The Planning Section Chief may assign preparation of forms to other personnel on the Incident Management Team if identified position is unassigned or vacant when the IAP is produced.

5.1 INCIDENT ACTION PLAN (Cont'd)

Depending on the nature and severity of the emergency, additional documents may be included in the IAP. These may include:

- Sensitivity Maps (Provided in Section 6)
- Waste Management & Disposal Plans (Provided in Appendix E)
- Plans for use of Alternative Technologies (Dispersant/In-situ Burning/Bioremediation)
- Security Plans
- Decontamination Plans
- Traffic Plans

5.2 SITE SAFETY PLAN

Site Safety Plans (SSP) are required by OSHA (29CFR1910.120(b)(4)) for all hazardous waste operations. The SSP should address all on-site operations and hazardous as well as on-site emergency procedures. A template for use in producing an SSP is provided in this Section.

The SSP is typically prepared by the Safety Officer and approved by the Incident Commander. All personnel must be familiar with the contents of the SSP and the SSP must be updated as conditions, operations and hazards associated with the response change.

ICS FORMS

ICS 201-CG (pg 1 of 4) (Rev 4/04)

NRC Incident No. # _____

1. Incident Name	2. Prepared by: (name) Date: _____ Time: _____	INCIDENT BRIEFING ICS 201-CG
5. Initial Response Objectives, Current Actions, Planned Actions		

NRC Incident No. # _____

1. Incident Name

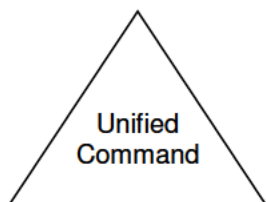
2. Prepared by: (name)

Date:

Time:

INCIDENT BRIEFING
ICS 201-CG

6. Current Organization



FOSC _____

SOSC _____

RPIC _____

Safety Officer _____

Liaison Officer _____

Information Officer _____

Operations Section

Planning Section

Logistics Section

Finance Section

Div./Group

Div./Group

Div./Group

Div./Group

Div./Group

ICS 201-CG (pg 4 of 4) (Rev 4/04)

NRC Incident No. # _____

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time) From: _____ To: _____	CG IAP COVER SHEET												
3. Approved by Incident Commander(s): <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%; text-align: left;"><u>ORG</u></th> <th style="width: 15%; text-align: left;"><u>NAME</u></th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </tbody> </table>			<u>ORG</u>	<u>NAME</u>	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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INCIDENT ACTION PLAN The items checked below are included in this Incident Action Plan: ☐ ICS 202-CG (Response Objectives) _____ ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart) _____ ☐ ICS 204-CGs (Assignment Lists) One Copy each of any ICS 204-CG attachments: _____ ☐ ICS 205-CG (Communications Plan) _____ ☐ ICS 206-CG (Medical Plan) ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____ ☐ Map/Chart ☐ Weather forecast / Tides/Currents <u>Other Attachments</u> ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐ _____														
4. Prepared by: _____ Date/Time _____														

NRC Incident No. # _____

1. Incident Name	2. Operational Period (Date/Time) From: To:	INCIDENT OBJECTIVES ICS 202-CG
3. Objective(s)		
4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)		
5. Prepared by: (Planning Section Chief) Date/Time		

Approved Site Safety Plan Located at:

NRC Incident No. # _____

1. Incident Name	2. Operational Period (Date/Time) From: _____ To: _____	ORGANIZATION ASSIGNMENT LIST ICS 203-CG																																																																																				
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ICS 204-CG (Rev 04/04)

NRC Incident No. # _____

1. Incident Name		2. Operational Period (Date/Time)		ASSIGNMENT LIST ATTACHMENT	
		From: _____ To: _____		ICS 204a-CG	
3. Branch			4. Division/Group		
5. Strike Team/Task Force/Resource (Identifier)		6. Leader		7. Assignment Location	
8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations					
Approved Site Safety Plan Located at: _____					
9. Other Attachments (as needed)					
☐ Map/Chart		☐ Weather Forecast/Tides/Currents		☐ _____	
☐ _____		☐ _____		☐ _____	
10. Prepared by: _____ Date/Time _____		11. Reviewed by (PSC): _____ Date/Time _____		12. Reviewed by (OSC): _____ Date/Time _____	

NRC Incident No. # _____

1. Incident Name		2. Operational Period (Date / Time) From: _____ To: _____		INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG	
3. BASIC RADIO CHANNEL USE					
SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS
4. Prepared by: (Communications Unit)				Date / Time	
INCIDENT RADIO COMMUNICATIONS PLAN					

[illegible]

NRC Incident No. # _____

1. Incident Name	2. Operational Period (Date/Time) From: _____ To: _____	INCIDENT ORGANIZATION CHART ICS 207-CG
INCIDENT COMMAND FOSC SOSC RPIC INFORMATION OFFICER SAFETY OFFICER LIAISON OFFICER INVESTIGATORS NRDA REPS. AGENCY REPS. Indicates initial contact point OPERATIONS SECTION CHIEF STAGING AREA MANAGER RECOVERY BRANCH DIRECTOR PROTECTION GROUP SUPERVISOR ON WATER GROUP SUPERVISOR SHORESIDE GROUP SUPERVISOR DISPOSAL GROUP SUPERVISOR DECON GROUP SUPERVISOR DISPERSANT OPS GROUP SUPERVISOR IN SITU BURN OPS GROUP SUPERVISOR EMERGENCY RESPONSE BRANCH DIRECTOR SAR GROUP SUPERVISOR SALVAGE/SOURCE CONTROL GROUP SUPERVISOR FIRE SUPPRESSION GROUP SUPERVISOR HAZMAT GROUP SUPERVISOR EMS GROUP SUPERVISOR LAW ENFORCEMENT SUPERVISOR PLANNING SECTION CHIEF SITUATION UNIT LEADER RESOURCE UNIT LEADER DOCUMENTATION UNIT LEADER DEMOBILIZATION UNIT LEADER ENVIRONMENTAL UNIT LEADER RECOVERY OF SUPERVISOR WILDLIFE REHAB GROUP SUPERVISOR TECHNICAL SPECIALISTS LOGISTICS SECTION CHIEF SUPPORT BRANCH DIRECTOR SUPPLY UNIT LEADER FACILITIES UNIT LEADER VESSEL SUPPORT UNIT LEADER GROUND SUPPORT UNIT LEADER SERVICE BRANCH DIRECTOR FOOD UNIT LEADER MEDICAL UNIT LEADER COMMUNICATIONS UNIT LEADER FINANCE/ADMIN SECTION CHIEF COST UNIT LEADER TIME UNIT LEADER PROCUREMENT UNIT LEADER COMPENSATION UNIT LEADER		

INCIDENT ORGANIZATION CHART

ICS 207-CG (Rev 03/05)

NRC Incident No. # _____

1. Incident Name		2. Operational Period (Date / Time) From: To: Time of Report 		INCIDENT STATUS SUMMARY ICS 209-CG	
3. Type of Incident					
☐ Oil Spill	☐ HAZMAT	☐ AMIO			
☐ SAR/Major SART	☐ SI/Terrorism	☐ Natural Disaster			
☐ Marine Disaster	☐ Civil Disturbance	☐ Military Outload			
☐ Planned Event	☐ Maritime HLS/Prevention	☐			
4. Situation Summary as of Time of Report:					
5. Future Outlook/Goals/Needs/Issues:					
6. Safety Status/Personnel Casualty Summary					
	Since Last Report	Adjustments To Previous Op Period	Total		
Responder Injury					
Responder Death					
Public Missing (Active Search)					
Public Missing (Presumed Lost)					
Public Uninjured					
Public Injured					
Public Dead					
Total Public Involved					
7. Property Damage Summary					
Vessel		\$			
Cargo		\$			
Facility		\$			
Other		\$			
8. Attachments with clarifying information					
☐ Oil/HAZMAT	☐ SAR/LE	☐			
☐	☐	☐			
☐ Marine Disaster	☐ Civil Disturbance	☐ Military Outload			

NRC Incident No. # _____

9. Equipment Resources					
Kind	Notes	# Ordered	# Available	# Assigned	# Out of Service
USCG Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – USCG Cutter					
Vessels – Boat					
Vehicles – Car					
Vehicles – Truck					
Pollution Equip – VOSS/SORS					
Pollution Equip – Portable Storage					
Pollution Equip – Boom					
Non-CG/Other Assets					
Aircraft – Helo					
Aircraft – Fixed Wing					
Vessels – SAR/LE Boat					
Vessels – Work/Crew Boat					
Vessels – Tug/Tow Boat					
Vessels – Pilot Boat					
Vessels – Deck Barge					
Vessels –					
Vehicles – Car					
Vehicles – Ambulance					
Vehicles – Truck					
Vehicles – Fire/Rescue/HAZMAT					
Vehicles – Vac/Tank Truck					
Vehicles –					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/ Barge					
Pollution Equip – Portable Storage					
Pollution Equip – OSRV					
Pollution Equip – Boom					
Pollution Equip –					
10. Personnel Resources					
Agency				Total # of People	
USCG					
DHS (other than USCG)					
NOAA					
FBI					
DOD (USN Supsalv, CST, etc.)					
DOI (US Fish & Wildlife, Nat Parks, BLM, etc.)					
RP					
State					
Local					
Total Personnel Resources Used From all Organizations:					
11. Prepared by:				Date/Time Prepared:	

NRC Incident No. # _____

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report 	ICS 209-CG OIL/HAZMAT ATTACHMENT				
3. HAZMAT/Oil Spill Status (Estimated, in gallons)						
Common Name(s):						
UN Number:	☐ Secured	☐ Unsecured				
CAS Number:	Remaining Potential (bbl):					
	Rate of Spillage (bbl/hr):					
	Adjustments To Previous Operational Period	Since Last Report				
		Total				
Volume Spilled/Released						
Mass Balance - HAZMAT/Oil Budget						
Recovered HAZMAT/Oil						
Evaporation/Airborne						
Natural Dispersion						
Chemical Dispersion						
Burned						
Floating, Contained						
Floating, Uncontained						
Onshore						
Total HAZMAT/Oil accounted for:	N/A	N/A				
Comments:						
4. HAZMAT/Oil Waste Management (Estimated, Since Last Report)						
	Recovered	Disposed				
		Stored				
HAZMAT/Oil (bbl)						
Oily Liquids (bbl)						
Liquids (bbl)						
Oily Solids (tons)						
Solids (tons)						
Comments:						
5. HAZMAT/Oil Shoreline Impacts (Estimated in miles)						
Degree of Impact	Affected	Cleaned				
		To Be Cleaned				
Light						
Medium						
Heavy						
Total						
Comments:						
6. HAZMAT/Oil Wildlife Impacts (Since Last Report)						
					Died in Facility	
Type of Wildlife	Captured	Cleaned	Released	DOA	Euthanized	Other
Birds						
Mammals						
Reptiles						
Fish						
Total						
Comments:						
7. Prepared by:					Date/Time Prepared:	

NRC Incident No. # _____

1. Incident Name	2. Operational Period (Date / Time) From: To: Time of Report 		ICS 209-CG SAR/LE ATTACHMENT	
3. Evacuation Status				
	Since Last Report	Adjustments To Previous Operational Period	Total	
Total to be Evacuated				
Number Evacuated				
4. Migrant Interdiction Status				
	Since Last Report	Adjustments To Previous Op Period	Total	
Vessels Interdicted				
Migrants Interdicted at Sea				
Migrants Interdicted Ashore				
Injured				
MEDEVAC'd				
Deaths				
Migrants Repatriated				
5. Sorties/Patrols Summary (List of Sorties Since Last Report)				
<u>Air</u>		Since Last Report	Total	
Number of Sorties/Patrols				
Area Covered (square miles)				
Total Time On-Scene (In Hours)				
<u>Surface</u>		Since Last Report	Total	
Number of Sorties/Patrols				
Area Covered (square miles)				
Total Time On-Scene (In Hours)				
6. Use of Force Summary				
Category		Since Last Report	Total	
III - Soft Empty Hand Control				
IV - Hard Empty Hand Control				
V - Intermediate Weapons				
VI - Deadly Force				
VSL - Force to Stop Vessel from Cutter/Boat				
A/C - Force to Stop Vessel From Aircraft				
Arrests				
Seizures				
Deaths				
7. Operational Controls Summary				
Currently In Force				
Type	Initiating Unit	Initiated Date	Activity #	
Removed Since Last Report				
Type	Initiating Unit	Initiated Date	Date Removed	Activity #
18. Prepared by:			Date/Time Prepared:	

[illegible]

1. Incident Name		2. Operational Period (Date / Time) From: _____ To: _____				AIR OPERATIONS SUMMARY ICS 220-CG																											
3. Distribution ☐ Fixed-Wing Bases _____ ☐ Helibase _____																																	
4. Personnel and Communications <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;"></th> <th style="width: 20%;">Air Operations Director</th> <th style="width: 20%;">Air / Air Frequency</th> <th style="width: 20%;">Air / Ground Frequency</th> </tr> <tr> <td>Air Operations Director</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Air Tactical Supervisor</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Air Support Supervisor</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Helicopter Coordinator</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Fixed-Wing Coordinator</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table>							Air Operations Director	Air / Air Frequency	Air / Ground Frequency	Air Operations Director	_____	_____	_____	Air Tactical Supervisor	_____	_____	_____	Air Support Supervisor	_____	_____	_____	Helicopter Coordinator	_____	_____	_____	Fixed-Wing Coordinator	_____	_____	_____	5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities) 			
	Air Operations Director	Air / Air Frequency	Air / Ground Frequency																														
Air Operations Director	_____	_____	_____																														
Air Tactical Supervisor	_____	_____	_____																														
Air Support Supervisor	_____	_____	_____																														
Helicopter Coordinator	_____	_____	_____																														
Fixed-Wing Coordinator	_____	_____	_____																														
6.	7.	8.		9.		10.		11.	12.																								
Location / Function	Assignment	Fixed-Wing		Helicopter		Time		Aircraft Assigned	Operating Base																								
		NO.	TYPE	NO.	TYPE	Available	Commence																										
13. TOTALS																																	
14. Air Operation Support Equipment					15. Prepared by					Date / Time																							
AIR OPERATIONS SUMMARY								ICS 220-CG (Rev.07/04)																									

NRC Incident No. # _____

1. Incident Name		2. Operational Period (Date/Time) From: _____ To: _____		RESOURCES AT RISK SUMMARY ICS 232-CG	
3. Environmentally-Sensitive Areas and Wildlife Issues					
Site #	Priority	Site Name and/or Physical Location	Site Issues		
Narrative 					
4. Archaeo-cultural and Socio-economic Issues					
Site #	Priority	Site Name and/or Physical Location	Site Issues		
Narrative 					
5. Prepared by: (Environmental Unit Leader)			Date/Time		
RESOURCES AT RISK SUMMARY			ICS 232-CG (Rev.07/04)		

NRC Incident No. # _____

SITE SAFETY PLAN**I. General - Spill / Release**
☐ Land ☐ Air ☐ Water ☐ HAZMAT ☐ Other: _____

Facility: _____

Location: _____

Objectives: _____

Operational Period: Date _____ Time: _____ to _____

II. Hazards to be Evaluated

Y	N		Y	N	
☐	☐	Oxygen Deficient/Enriched	☐	☐	Chemical/MSDS # _____
☐	☐	Flammable Atmosphere	☐	☐	Physical Site Hazard _____
☐	☐	Toxic Atmosphere: _____	☐	☐	Traffic _____
☐	☐	Boat Operations	☐	☐	Other* (see comments) _____

III. Weather

Skies: _____ Tide: _____ Water Temperature: _____

Temperature: _____ Current: _____ Kts. Current Direction: _____

Wind Velocity: _____ Wind Direction: _____

IV. Control Measures

Isolation & Lockout (Identify items to be locked out): _____

Decon: _____

Ventilation: ☐ Natural ☐ Mechanical: _____ Continuous: ☐ No ☐ Yes

Flagman/Watchman: _____

V. Testing & Monitoring (Check required items)*Tests are to be performed in the order listed.*

Y	N		Continuous	Frequency
☐	☐	Oxygen Level	☐ Y ☐ N	_____ every _____
☐	☐	LEL	☐ Y ☐ N	_____ every _____
☐	☐	Hydrogen Sulfide	☐ Y ☐ N	_____ every _____
☐	☐	Benzene	☐ Y ☐ N	_____ every _____
☐	☐	VOC: _____	☐ Y ☐ N	_____ every _____
☐	☐	Other: _____	☐ Y ☐ N	_____ every _____

ACCEPTABLE ENTRY CONDITIONS

SPECIAL WORK PRACTICES OR PPE REQUIRED	WORK EFFORTS SHOULD BE DIRECTED AT REDUCING CONCENTRATIONS
--	--

19.5 – 22.0% in air*	< 19.5% or 22.0% in air*	< 16.0 or ≥ 23.5% in air
< 10% in air	≥ 10.0 but < 20.0% in air†	≥ 20.0% in air
< 10 ppm	≥ 10 but < 100 ppm	≥ 100 ppm
< 1 ppm	≥ 1 but < 3000 ppm	≥ 3000 ppm

As allowed by applicable standard(s) *Acceptable for 5325 feet of elevation and below.

†Hot work is not permitted when LEL is greater than 10% in air.

VI. Required Personal Protective Equipment (Check for required use)

General	Eye Prot.	Respiratory Prot.	Hearing Prot.	Gloves	Footwear	Clothing
☐ Hard Hat	☐ Safety Glasses	☐ SCBA/Air Line w/Escapes	☐ Ear Plugs	☐ Leather	☐ Steel-toes	☐ FR Coveralls
☐ Safety Harness	☐ Goggles	☐ Air Line	☐ Ear Muffs	☐ Rubber	☐ Rubber	☐ Level A
☐ PFD	☐ Face-shield	☐ Air Purifying (Full Mask)	☐ Combination	☐ Nitrile	☐ Hip-boots	☐ Level B
	☐ Tinted Lens	Cartridge Type: ☐ OV ☐ Hepa-OVV		☐ PVC	☐ Chemical Resistant	☐ Level C
				☐ _____	☐ _____	☐ Level D

Any other special PPE: _____

VII. Emergency Information and Rescue Services

Emergency Contact Person: _____ Contact by: _____

Fire Department: _____ Contact by: _____

Ambulance: _____ Contact by: _____

Hospital: _____ Contact by: _____

Rescue Services: _____ Contact by: _____

(if not provided by above)

VIII. Required Safety & Rescue Equipment (on site)
☐ Lights ☐ Fall Protection ☐ First Aid Kit ☐ Drinking Water ☐ Fire Extinguisher ☐ Tripod ☐ Other: _____
☐ Ladder ☐ Retrieval Lines ☐ Defibrillator ☐ Communication Method _____

NRC Incident No. # _____

IX. Comments or Special Work Procedures

X. Report All Injuries Immediately - "Notify Site Safety Officer"

Radio Channel: _____ Radio Frequency: _____ Telephone No. _____

Call 911 if life threatening

XI. Monitoring Results	Zone														
Oxygen	Time														
	Level														
	By														
LEL	Time														
	Level														
	By														
Hydrogen Sulfide	Time														
	Level														
	By														
Benzene	Time														
	Level														
	By														
VOC	Time														
	Level														
	By														
	Time														
	Level														
	By														
	Time														
	Level														
	By														
	Time														
	Level														
	By														

Equipment: Type: _____
Type: _____Mnfr: _____
Mnfr: _____Calibration / Expiration: _____
Calibration / Expiration: _____

NRC Incident No. # _____

XII. Work Area Diagram

Please include wind direction, exclusion zone, support zone, decon area and significant landmarks.

The diagram area is a large rectangle defined by a grid of 20 columns and 20 rows of small squares. The top and bottom edges of the grid have tick marks every 2 columns. The left and right edges of the grid have tick marks every 2 rows. The grid is currently empty, intended for a hand-drawn diagram.

NRC Incident No. # _____

XIII. Crew Signatures from Specific Location: _____

[illegible]

XIV. Authorizing Signature

Site Manager: **Printed Name:** _____ **Signature:** _____

I hereby acknowledge and authorize the above work to be performed in accordance with the conditions outlined on this permit. If the work procedures or conditions change creating any unsafe conditions, then this permit is void and work is to be suspended. I understand and affirm that the conditions of this work permit will be followed prior to and during entry into a confined space. I also agree to order the work to be stopped and the confined space evacuated in the event that conditions of the permitted work area fail to meet the permit requirements.

6.0 SPILL IMPACT CONSIDERATIONS

6.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as high, moderate, and low sensitivity to oil for non-coastal/inland environments. The Federal, State, and Local authorities will further clarify these categories at the time of the response. The categories are defined as follows:

HIGH SENSITIVITY

- Areas which are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened/endangered species.
- Areas which consist of forested areas, brush/grassy areas, wooded lake areas, freshwater marshes, wildlife sanctuaries/refuges, and vegetated river/stream banks.

MODERATE SENSITIVITY

- Areas of moderate productivity, somewhat resistant to the effects of oiling.
- Areas which consist of degraded marsh habitat, clay/silt banks with vegetated margins, and gravel/cobble beaches.

LOW SENSITIVITY

- Areas of low productivity, man-made structures, and/or high energy.
- Areas which consist of gravel, sand, or clay material, barren/rocky riverbanks and lake edges, man-made structures, and concrete/compacted earthen drainage ditches.

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES

Environmental/Socio-economic sensitivities are of extreme importance when planning a response effort. The health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

All environmental/socio-economic sensitivities are worthy of protection, but must be prioritized during a response effort. When making decisions on which areas to designate as collection areas and which to protect, the following sources may be consulted:

- U.S. Fish and Wildlife Service and related State agencies
- Applicable Area Contingency Plans
- Other industry and private experts

6.2 ENVIRONMENTAL/SOCIO-ECONOMIC SENSITIVITIES (Cont'd)

The environmental and socio-economic sensitivities in the vicinity of the Pipeline have been broken down into specific categories and identified in this Section. To further clarify the location of the sensitive areas of concern references to published Area Contingency Plans and Environmental Sensitivity Maps are also provided in this section.

6.3 WILDLIFE PROTECTION AND REHABILITATION

The Company will work with Federal, State, and local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill, as necessary. Oversight of the Company's wildlife preservation activities and coordination with Federal, State, and Local agencies during an oil spill is the responsibility of the Incident Commander.

Special consideration should be given to the protection and rehabilitation of endangered species and other wildlife and their habitat in the event of an oil spill and subsequent response. Jurisdictional authorities should be notified and worked with closely on all response/clean-up actions related to wildlife protection and rehabilitation. Laws with significant penalties are in place to ensure appropriate protection of these species.

6.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Pipeline's operating areas (area of highest oil spill potential) is presented in Figure 6.2.

6.3.2 Wildlife Rescue

The Company will work with Federal, State, and Local agency personnel to provide labor and transportation to retrieve, clean, and rehabilitate wildlife affected by an oil spill, as the situation demands.

The following are items which should be considered for wildlife rescue and rehabilitation during a spill response:

- Bird relocation can be accomplished using a variety of deterrents, encouraging birds to avoid areas of spilled oil. Bird relocation can be accomplished by utilizing deterrent methods including:
 - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
 - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers.
 - Use of herding with aircraft, boats, vehicles, or people (as appropriate).
 - Use of capture and relocation.

6.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

6.3.3 Search and Rescue - Points to Consider

- **The Company's involvement should be limited to offering assistance as needed or requested by the agencies.**
- Prior to initiating any organized search and rescue plan, **authorization must be obtained from the appropriate federal/state agency.**
- **Initial search and rescue efforts, if needed, should be left up to the appropriate agencies.** They have the personnel, equipment, and training to immediately begin capturing contaminated wildlife.
- With or without authorization it must be anticipated that volunteer citizens will aid distressed/contaminated wildlife of their own. It is important to communicate that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate rehabilitator, however, **no support should be given to any unauthorized volunteer rescue efforts.**
- The regulatory agencies and response personnel should be provided the name and location of a qualified rehabilitator in the event contaminated wildlife is captured.
- Resources and contacts that can assist with wildlife rescue and rehabilitation are provided in Section 2.0. This list includes:
 - Outside rehabilitation organizations
 - Local regulatory agencies
 - Other resources

6.4 STAGING AREAS

When establishing personnel and equipment staging areas for a response to a Pipeline discharge, the following criteria should be evaluated:

- Access to waterborne equipment launching facilities and/or land equipment.
- Access to open space for staging/deployment of heavy equipment and personnel.
- Access to public services utilities (electricity, potable water, public phone, restroom and washroom facilities, etc.)
- Access to the environmental and socio-economically sensitive areas which are projected for impact.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT

General descriptions of various specific response techniques that may be applied during a response effort are discussed below. Company responders are free to use all or any combination of these methods as incident conditions require, provided they meet the appropriate safety standards and other requirements relative to the situation encountered. Data was obtained from reports, manuals and pamphlets prepared by the American Petroleum Institute, Environmental Protection Agency and the United States Coast Guard. The most effective cleanup of a product spill will result from an integrated combination of clean-up methods. Each operation should complement and assist related operations and not merely transfer spillage problems to areas where they could be more difficult to handle.

The spill should be assessed as soon as possible to determine the source, extent and location of travel. Terrain and other physical conditions downgradient of the spill site will determine the methods of control at a point in advance of the moving product. Often, the bulk of a spill can be contained at a single location or a few key locations in the immediate vicinity of the source point. When possible the execution of this type of initial containment strategy helps confine a spill to a relatively limited area.

6.5.1 Spill on Land (Soil Surfaces)

- **Confinement Methods**

Product can be trapped in ditches and gullies by earth dams. Where excavating machinery is available, dams can be bulldozed to contain lakes of product. Dams, small and large, should be effectively employed to protect priority areas such as inlets to drains, sewers, ducts and watercourses. These can be constructed of earth, sandbags, absorbents, planks or any other effective method. If time does not permit a large dam, many small ones can be made, each one holding a portion of the spill as it advances. The terrain will dictate the placement of the dams. If the spill is minor, natural dams or earth absorption will usually stop the product before it advances a significant distance. Cleanup is the main concern in such situations.

In situations where vapors from a spill present a clear and present danger to property or life (possible ignition because of passing automobiles, nearby houses, or work vehicles approaching the area), spraying the surface of the spill with dispersant will greatly reduce the release of additional vapors from the product. This method is especially adapted to gasoline spills on soil surfaces.

- **Removal Methods**

The recovery and removal of free product from soil surfaces is a difficult job. The best approaches at present seem to be:

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.1 Spill on Land (Soil Surfaces) (Cont'd)

- Removal with suction equipment to tank truck if concentrated in volumes large enough to be picked up. Channels can be formed to drain pools of product into storage pits. The suction equipment can then be used.
- Small pockets may have to be dipped up by hand.
- If practicable after removal of the bulk of the spill, controlled burning presents the possibility of a fast, simple, and inexpensive method of destruction of the remainder of the product. If all other options have been executed and the site is still unsafe for further activity because explosive vapors persist, the vapors may need to be intentionally ignited to prevent an accumulation sufficient to become an explosive mixture, provided the other requirements of these guidelines for controlled burning are met.

Intentional ignition to remove released product should be utilized only if all of the following conditions are met:

- Other steps and procedures have been executed and a determination has been made that this is the safest remaining method of control.
- Intentional burning will not unduly damage the pipeline, adjacent property, or the environment.
- Controlled burning is permitted by government authorities. Local government authorities to be contacted may include city council, county board of commissioners, city or county fire chiefs, the county forestry commission or firetower, and the local environmental protection agency. In seeking permission from these authorities, be prepared to convince them that adequate safety precautions have been and will be taken during the operation.
- Controlled burning is conducted with the consent of local landowners.
- Safety must always be a prime consideration when considering controlled burning of product. Sparks and heat radiation from large fires can start secondary fires and strong winds make fire control difficult. There must be no danger of the fire spreading beyond control limits. All persons must be at a safe distance from the edge of the inflammable area. Remember that all burning must be controlled burning.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.2 Spill on Lake or Pond (calm or slow-moving water)

- **Confinement Methods**

A lake or pond offers the best conditions for removal of product from water. Although the removal is no easy task, the lake or pond presents the favorable conditions of low or no current and low or no waves.

The movement of product on a lake or pond is influenced mainly by wind. The product will tend to concentrate on one shore, bank or inlet. Booms should be set up immediately to hold the product in the confined area in the event of a change in wind direction.

If the spill does not concentrate itself on or near a shore (no wind effect), then a sweeping action using boats and floating booms will be necessary. The essential requirement for this operation is that it be done very slowly. The booms should be moved at not more than 40 feet per minute. Once the slick is moved to a more convenient location (near shore), the normal operations of removal should begin.

If the slick is small and thin (rainbow effect) and not near the shoreline, an absorbent boom instead of a regular boom should be used to sweep the area very slowly and absorb the slick. The product may not have to be moved to the shoreline.

- **Removal Methods**

If the confined slick is thick enough, regular suction equipment may be used first; however, in most instances, a floating skimmer should be removed. If judged appropriate or useful, a surface collecting agent should be applied once the slick is isolated to facilitate the removal. The surface collecting agent will concentrate the product into a smaller area and make the floating skimmer work more efficiently. If the floating skimmer starts picking up excess water (slick becomes thin), do not stop using it if it is not removing any appreciable amount of product.

Additions of more surface collecting agent from time to time may improve the skimming efficiency of the skimmer. It will continue to concentrate the slick into a smaller area, thus making the film thickness greater. Drawing the boom closer to the bank as product is removed will also keep film of product thicker. However, when the slick becomes too thin, the skimmer should be stopped and an absorbent applied (with a boat if necessary) to remove the final amounts.

The floating skimmer (if speed is a must) or hand skimmers (if water is shallow enough) or both can be used to pick up the product-soaked absorbent. Before pumping the product-soaked absorbent with a floating skimmer, insure that the absorbent in question can be pumped and will not harm the pump.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.2 Spill on Lake or Pond (calm or slow-moving water) (Cont'd)

Several types are nonabrasive to pump internals. If the floating skimmer is used first, the product-soaked absorbent/water mixture should be pumped into a tank truck.

A better method of retrieving the product-soaked absorbent is to draw it in as close to the shore as possible with the booms used to confine the product initially. The absorbent can then be hand skimmed from the water surface and placed in drums, on plastic sheets or in lined roll-off boxes. It should then be disposed of by acceptable means.

The final rainbow on the surface can be removed with additions of more absorbent.

6.5.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks)

- **Confinement Methods**

The techniques used for product containment on fast-flowing shallow streams are quite different from the ones used on lakes, ponds, or other still bodies of water. The containment and removal processes require a calm stretch of water to allow the product to separate onto the surface of the water. If a calm stretch of water does not exist naturally, a deep slow-moving area should be created by damming. The dam can be constructed by using sandbags, planks or earth. If a dam is required, it should be situated at an accessible point where the stream has high enough banks. The dam should be constructed soundly and reinforced to support the product and water pressure.

- Underflow dam - The underflow dam is one method that can be used, especially on small creeks. The water is released at the bottom, of the dam using a pipe or pipes which are laid during construction of the dam. The flow rate through the pipe must be sufficient to keep the dam from overflowing. One method is to lay the pipe at an angle through the dam (while dam is being constructed) so that the height of the downstream end of the pipe will determine the height the water will rise behind the dam.
- Overflow dam - Another method of containment is the overflow type dam. The dam is constructed so that water flows over the dam, but a deep pool is created which slows the surface velocity of the water. Therefore, the condition of a calm stretch of water is met. The overflow dam may be used where larger flow rates (medium size creeks) of water are involved. With this type dam, a separate barrier (floating or stationary boom) must be placed across the pool created by the dam. The separate barrier arrests the surface layer of product.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks) (Cont'd)

At the same time, the water is flowing under the barrier and over the top of the dam. The barrier should be placed at an angle of 45 % across the pool to decrease the effective water velocity beneath it. Also, it helps to concentrate the product at the bank and not all along the barrier. A second barrier should be placed approximately 10 to 15 feet downstream of the first one as a secondary back-up.

The stationary boom type barrier should be made of wood planks or other suitable material. The stationary boom should be soundly constructed and sealed against the bank. The ends of the planks can be buried in the banks of the stream and timber stakes driven into the stream bed for support as needed. The necessary length of the boom will be approximately 1-1/2 times the width of the waterway. The plank boom should extend six to eight inches deep into the water and about two inches or higher above the water level. If the increase in velocity under the stationary boom is causing release of trapped product, it should be moved upward slightly. At no time should barrier be immersed more than 20% of the depth of the pool at the barrier location; that is, if the pool created by damming is three feet deep, do not exceed an immersion depth of seven inches with the barrier at the position the barrier is installed.

Another method used with the underflow dam is having the pipe or pipes sized to carry only a portion of the flow needed. The pipe would be placed at the bottom of the dam and level with the creek bed. The remaining flow of the creek could be siphoned or preferably pumped around the dam from a point away from the dam and from the deepest portion of the pool. The pumping or siphoning can be controlled to maintain the desired water level at the dam. The key is the removal of water through or around the dam at the lowest point in the basin. This prevents the oil from escaping with the released water.

A floating boom can be used in place of the stationary type if the created pool's size (bank to bank) and depth will permit. Since changing the depth and/or length of a standard floating boom in a small stream is difficult, the use of the separation of product and water. The advantages of using a floating boom are the speed of deployment and the fact that there is not need for additional support as with the stationary boom.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks) (Cont'd)

- Multiple Impoundments – Since emergency built dams (either underflow or overflow) are seldom perfect, a series of dams is usually required. The first one or two will trap the bulk and the ones that are downstream will trap the last traces of product. Precautions should be taken to ensure that the foundations of emergency dams are not washed away by the released water. If earth is used to construct an overflow dam, a layer of earth-filled bags should be placed on top of the dam so erosion will not take place.

- **Removal Methods**

Once the containment dams are constructed, the problem of removal of the product from the water surface should be the prime consideration. The removal must be continuous or else build-up of product behind the dams or booms might lead to product escaping the traps.

The type of removal procedures used depends largely on the amount of product being trapped in a given span of time, if the amount of product moving down the stream is of sufficient quantity, the first dam or fixed boom would quite possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and possibly some water to a tank truck or other holding tank. Separated water may be released from the bottom of the tank truck if it becomes necessary. The absorbents (straw, ground corncobs, or other stocked absorbent) could then be used at downstream dams or booms. It is inadvisable to place an absorbent in the stream prior to or at the first dam in anticipation of the arriving product. Let the product accumulate at the first dam and use the floating skimmer to recover the product.

Disposal of gross amount of product-soaked absorbent would not then be a problem. Follow directions on use of each absorbent. Some are designed to be placed on water before product arrives (straw and other new types); others are intended only to be placed on the product after it accumulates on the water (ground corncobs and others). Plastic sheets should be used to place the product-soaked absorbent on as it is hand skimmed from the water. Alternatively, the material may be placed in drums or lined roll-off boxes.

If the amount of product in the stream is minor, a straw-bale may be constructed to filter out the product. The slowing of the water would not be necessary, but several dams might be necessary to ensure complete removal. The downstream dams would also offer protection when the upstream bales are removed, releasing traces of product. Straw-bale dams can also be used downstream from underflow and overflow dams for added protection.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.3 Spill on Small to Medium Size Streams (relatively fast-flowing creeks) (Cont'd)

Thus, the containment and removal of spilled product on small to medium fast-flowing streams might require a combination of underflow or overflow dams, fixed booms, skimmers, absorbents, and straw-bale dams to ensure a complete cleanup.

6.5.4 Spill on Large Streams and Rivers

- **Confinement Methods**

The containment techniques differ considerably on large streams and rivers versus small streams. First, the smooth calm area of water necessary for product-water separation must be found along the stream or river rather than making one as with small streams. Floating booms (rather than fixed booms or dams) must be used to trap the surfaced product.

Local conditions of current and wind must be considered when selecting the site for the boom. A point with a low water velocity near the bank, sufficient depth to operate the product removal equipment, and good access are required. The fact that wind may tend to concentrate the product against one bank must be considered. A smooth, undisturbed area of water is required immediately upstream of the boom to ensure that the product has opportunity to separate out onto the surface. The boom should be positioned where the current is at a minimum. It is more effective to boom at a wide, slow position than on a narrow, fast stretch of water.

If the boom are positioned straight across a river or stream, at right angles to the flow, surface water tends to dive beneath the barrier (boom) when current velocities exceed about $\frac{1}{2}$ knot (0.8 ft./sec.). However, if the current of the entire river is $\frac{1}{2}$ knot or less, then a boom can be positioned straight across the river or large stream, but angled slightly in relation of the banks. By placing the boom at an angle to the banks, product on the surface is diverted along the boom to the side of the river.

The current velocity is usually much slower near the river bank than in the center and the product will move along the boom toward the bank for removal. A water-tight seal between the bank and the boom is essential. A secondary boom should be set up immediately downstream of the first one to capture the amounts that escape the upstream boom. A boom can be employed parallel to the river flow at the bank to form the seal with the booms used to trap the product.

Where the current velocity of the chosen site exceeds $\frac{1}{2}$ knot, the boom should be positioned in two smooth curves from a point of maximum velocity (usually the center of the river) to both banks.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.4 Spill on Large Streams and Rivers (Cont'd)

However, this double-boom required product to be removed from both sides of the river. To determine the appropriate angle of boom placement and support (mooring) needed to hold the booms in position, the current velocity should be measured by timing a floating object which is 80% submerged over a distance of 100 feet. A time of 60 seconds over this distance indicates a water current of approximately 1 knot. For currents from 1 to 2.5 knots (1.7 to 4.2 ft./sec.), the more the boom will have to be angled acute to the bank. The length of the boom will have to be such to reach the center of the river. For currents between $\frac{1}{2}$ and 1 knot (0.8 and 1.7 ft./sec.), the angle of employment can be enlarged.

The major load on the boom is taken by the terminal moorings, particularly the one in the center of the river. However, intermediate moorings are also required both to maintain the smooth curve of the boom to prevent breaking of the boom and to assist with preventing skirt deflection. The intermediate moorings are preferably positioned every 25 feet and must be adjusted to avoid the formation of indentations in the boom profile. These trap product in pockets, prevent its deflection to the bank, and also encourage diving currents. The moorings' ropes should be five times the water depth.

In certain situations, it might be advantageous to position booms to deflect the approaching spilled product to a slower moving area. Naturally, additional booms would have to be positioned around this slower moving area prior to deflecting the product to the area. This approach has been used along river which have lagoons, etc., with a very low current action. The recovery would take place in the lagoons and not along the river bank.

- **Removal Methods**

The product collected upstream of the floating booms in a large stream or river should be removed from the water surface as it accumulates. Regular suction equipment, a floating skimmer, and/or absorbents (including absorbent booms) should be used to remove the product as appropriate to the quantity being trapped in a given span of time. If the amount moving down the stream is of sufficient quantity, the primary floating boom would possibly trap enough for the floating skimmer to work efficiently. The skimmer will pump the product and some water to a tank truck or other holing tank.

The absorbents (type that can be placed on water before product arrival straw is an example) would then be used upstream of the secondary boom to absorb the underflow from the primary boom.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.4 Spill on Large Streams and Rivers (Cont'd)

An absorbent boom (Sea-Serpent) or other stocked absorbent boom can also be placed between the primary and secondary booms to help the other absorbents control the underflow from the primary boom. If the underflow from the primary boom is significant, then the type absorbent which can be placed on the water only after product is collected may be used. An example of this type of absorbent is ground corncobs. It is best to hand skim the saturated absorbents and place on plastic sheets. However, if the absorbent used can be pumped after product absorption and speed of removal is a necessity, the floating skimmer can be used to remove the product-soaked absorbent.

The disadvantage of pumping the product-soaked absorbent to a truck is the volume that will accumulate (skimmer will pump excess water) and the disposal problems associated with the large water/product-soaked absorbent mixture.

If the volume of product moving toward the boomed area is expected to be small, an absorbent (straw) should be placed in the river upstream of the primary and secondary booms. If regular booms are not necessary, a screen filter could be stretched across the river to contain the straw, or an absorbent boom could be constructed by tightly fastening hay bales together, forming a chain. Boats (either rented or furnished by contractors) would be necessary to retrieve the product-soaked absorbents.

6.5.5 Spill on Stream which Flows into Lake or Pond

There are certain locations along the pipeline where streams (small and large ones) flow into lakes or ponds at relatively short distances from the pipeline. It is conceivable that a spill that reached the streams in question could reach or almost reach the lakes before containment and recovery operations could be set up. If time permits for containment operations to be set up on the stream in question, it then would be handled as described above depending upon the stream size involved.

However, if product in the stream is near the lake site or if product is flowing into the lake with a significant amount yet to arrive, a different containment should be employed.

- **Confinement Methods**

Product on a stream flowing into a lake should be boomed as close to the entrance as possible. The boom should be positioned on the lake at an angle to the residential stream current so as to direct the surface water to a slower moving area. The area where the product is being deflected should be enclosed by booms to contain it.

6.5 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT (Cont'd)

6.5.5 Spill on Stream which Flows into Lake or Pond (Cont'd)

An additional boom for sweeping the product to the bank will be required. This area of containment should not have a current velocity of more than 1/2 knot (0.8 ft./sec.), preferably less.

- **Removal Methods**

The removal of product from the lake or pond's surface would be handled as described earlier.

For sizable releases, collected product will usually be pumped into tank trucks and transported to a storage facility. Tank trucks are available at several locations throughout.

6.5.6 Spill in a Mud or Tidal Flat Area

- **Confinement Method**

Shoreline boom lined with absorbent boom should be placed at the surf line to prevent oil from washing up onto the flat area. If oiling has already occurred the boom is used to prevent further oiling and keep oil that has impacted the flat from spreading.

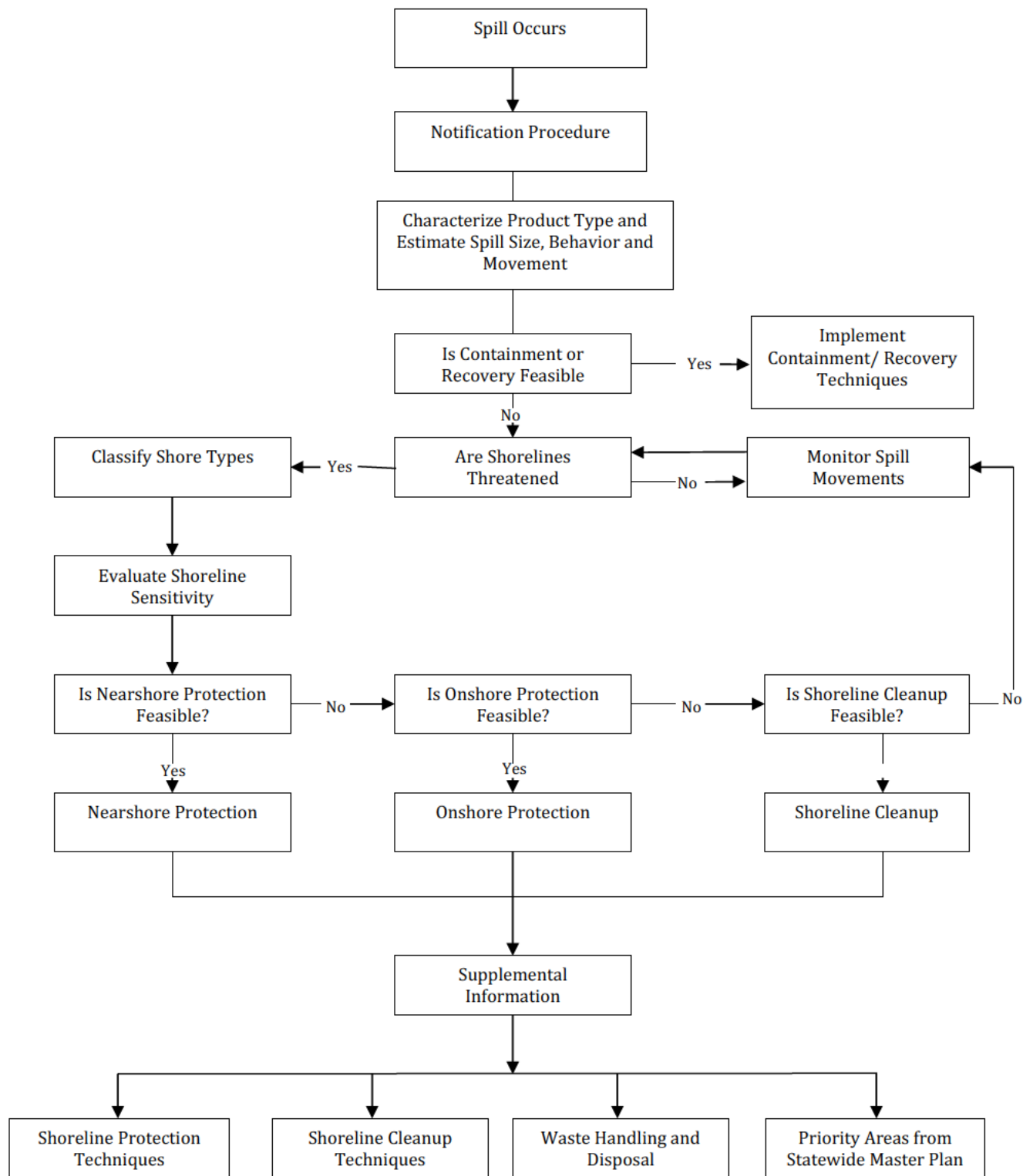
- **Removal Methods**

Natural Recovery, Flooding and Sorbents are the three preferred methods. Any invasive type of recovery method poses a risk of driving the oil into the substrate of the flat and endangering the biologicals that live there. Invasive methods should only be used in order to protect more sensitive areas.

6.5.7 Spill in Urban Areas

Oil spills in urban areas can greatly impact recreational use, human health, wildlife habitat(s), and potential beach or park closures. Manmade structures along waterways require unique protection strategies. Manmade structures could include vertical shore protection structures such as seawalls, piers, and bulkheads, as well as riprap revetments and groins, breakwaters, and jetties. Vertical structures can be constructed of concrete, wood, and corrugated metal. They usually extend below the water surface, although seawalls can have beaches or riprap in front of them. These structures are very common along developed shores, particularly in harbors, marinas, and residential areas. The range in degree of exposure to waves and currents varies widely, from very low in dead-end canals, to very high on offshore breakwaters. Boat wakes can generate wave energy in otherwise sheltered areas.

FIGURE 6.1
ON WATER RESPONSE FLOWCHART



6.6 VULNERABILITY ANALYSIS

The thorough examination of published Area Contingency Plans (ACPs) was conducted to identify sensitive areas in all the response zones. The following resources provided detailed information on sensitivities and possibly methods for containing them:

- U.S. Coast Guard - Sector Los Angeles - Long Beach Area Contingency Plan

6.7 ALTERNATIVE RESPONSE STRATEGIES

There are no pre-approved response options for inland spills within the United States. Any plans to use dispersants or in situ burn by the Company will be submitted to the Federal On-Scene Coordinator for Regional Response Team approval prior to such action being taken.

FIGURE 6.2

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

The following is a listing of the endangered and threatened animals and plants and wildlife species of special concern in the State of California.

ANIMALS	
COMMON NAME	SCIENTIFIC NAME
Abalone, White North America (Along West Coast from Point Conception, CA, USA, to Punta Abreojos, Baja California, Mexico)	<i>Hailotis sorenseni</i>
Albatross, short-tailed	<i>Phoebastria (=Diomedea) albatrus</i>
Bear, grizzly lower 48 states, except where listed as an experimental population or delisted	<i>Ursus arctos horribilis</i>
Beetle, delta green ground	<i>Elaphrus viridis</i>
Beetle, Mount Hermon June	<i>Polyphylla barbata</i>
Beetle, valley elderberry longhorn	<i>Desmocerus californicus dimorphus</i>
Butterfly, bay checkerspot	<i>Euphydryas editha bayensis</i>
Butterfly, Behren's silverspot	<i>Speyeria zerene behrensii</i>
Butterfly, callippe silverspot	<i>Speyeria callippe callippe</i>
Butterfly, El Segundo blue	<i>Euphilotes battoides allyni</i>
Butterfly, Lange's metalmark	<i>Apodemia mormo langei</i>
Butterfly, lotis blue	<i>Lycaeides argyrognomon lotis</i>
Butterfly, mission blue	<i>Icaricia icarioides missionensis</i>
Butterfly, Myrtle's silverspot	<i>Speyeria zerene myrtleae</i>
Butterfly, Oregon silverspot	<i>Speyeria zerene hippolyta</i>
Butterfly, Palos Verdes blue	<i>Glaucopsyche lygdamus paolsverdesensis</i>
Butterfly, Quino checkerspot	<i>Euphydryas editha quino (=E. e. wrighti)</i>
Butterfly, San Bruno elfin	<i>Callophrys mossii bayensis</i>
Butterfly, Smith's blue	<i>Euphilotes enoptes smithi</i>
Chub, bonytail entire	<i>Gila elegans</i>
Chub, Mohave tui	<i>Gila bicolor mohavensis</i>
Chub, Owens tui	<i>Gila bicolor snyderi</i>
Condor, California USA only	<i>Gymnogyps californianus</i>
Crayfish, Shasta	<i>Pacifastacus fortis</i>
Curlew, Eskimo	<i>Numenius borealis</i>
Fairy shrimp, Conservancy	<i>Branchinecta conservation</i>
Fairy shrimp, longhorn	<i>Branchinecta longiantenna</i>
Fairy shrimp, Riverside	<i>Streptocephalus woottoni</i>
Fairy shrimp, San Diego	<i>Branchinecta sandiegonensis</i>
Fairy shrimp, vernal pool	<i>Branchinecta lynchi</i>
Fly, Delhi Sands flower-loving	<i>Rhaphiomidas terminates abdominalis</i>
Flycatcher, southwestern willow	<i>Empidonax traillii extimus</i>
Fox, San Joaquin kit	<i>Vulpes macrotis mutica</i>
Fox, San Miguel Island	<i>Urocyon littoralis littoralis</i>
Fox, Santa Catalina Island	<i>Urocyon littoralis catalinae</i>
Fox, Santa Cruz Island	<i>Urocyon littoralis santacruzae</i>
Fox, Santa Rosa Island	<i>Urocyon littoralis santarosae</i>
Frog, California red-legged subspecies range clarified	<i>Rana aurora draytonii</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

ANIMALS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Frog, mountain yellow-legged southern California DPA	<i>Rana muscosa</i>
Gnatcatcher, coastal California	<i>Polioptila californica californica</i>
Goby, tidewater Entire	<i>Eucyclogobius newberryi</i>
Grasshopper, Zayante band-winged	<i>Trimerotropis infantilis</i>
Jaguar	<i>Panthera onca</i>
Kangaroo rat, Fresno	<i>Dipodomys nitratoide exilis</i>
Kangaroo rat, giant	<i>Dipodomys ingens</i>
Kangaroo rat, Morro Bay	<i>Dipodomys heermanni morroensis</i>
Kangaroo rat, San Bernardino Merriam's	<i>Dipodomys merriami parvus</i>
Kangaroo rat, Stephens'	<i>Dipodomys stephensi (incl. D. cascus)</i>
Kangaroo rat, Tipton	<i>Dipodomys nitratoide nitratoide</i>
Lizard, blunt-nosed leopard	<i>Gambelia silus</i>
Lizard, Coachella Valley fringe-toed	<i>Uma inornata</i>
Lizard, Island night	<i>Xantusia riversiana</i>
Moth, Kern primrose sphinx	<i>Euproserpinus euterpe</i>
Mountain beaver, Point Arena	<i>Aplodontia rufa nigra</i>
Mouse, Pacific pocket	<i>Perognathus longimembris pacificus</i>
Mouse, salt marsh harvest	<i>Reithrodontomys raviventris</i>
Murrelet, marbled CA, OR, WA	<i>Brachyramphus marmoratus</i>
Otter, southern sea except where EXPN	<i>Enhydra lutris nereis</i>
Owl, northern spotted	<i>Strix occidentalis caurina</i>
Pelican, brown except US Atlantic coast, FL, AL	<i>Pelecanus occidentalis</i>
Pikeminnow (=squawfish), Colorado except Salt and Verde R. drainages, AZ	<i>Ptychocheilus lucius</i>
Plover, western snowy Pacific coastal pop.	<i>Charadrius alexandrinus nivosus</i>
Pupfish, desert	<i>Cyprinodon macularius</i>
Pupfish, Owens	<i>Cyprinodon radiosus</i>
Rabbit, riparian brush	<i>Sylvilagus bachmani riparius</i>
Rail, California clapper	<i>Rallus longirostris obsoletus</i>
Rail, light-footed clapper USA only	<i>Rallus longirostris levipes</i>
Rail, Yuma clapper USA only	<i>Rallus longirostris yumanensis</i>
Salamander, California tiger USA (CA - Santa Barbara County)	<i>Ambystoma californiense</i>
Salamander, California tiger USA (CA - Sonoma County)	<i>Ambystoma californiense</i>
Salamander, California tiger USA (Central CA DPS)	<i>Ambystoma californiense</i>
Salamander, desert slender	<i>Batrachoseps aridus</i>
Salamander, Santa Cruz long-toed	<i>Ambystoma macrodactylum croceum</i>
Salmon, chinook CA Central Valley spring-run	<i>Oncorhynchus (=Salmo) tshawytscha</i>
Salmon, chinook CA coastal	<i>Oncorhynchus (=Salmo) tshawytscha</i>
Salmon, Chinook winter Sacramento R.	<i>Oncorhynchus (=Salmo) tshawytscha</i>
Salmon, coho OR, CA pop.	<i>Oncorhynchus (=Salmo) kisutch</i>
Salmon, coho central CA coast	<i>Oncorhynchus (=Salmo) kisutch</i>
Sea turtle, green except where endangered	<i>Chelonia mydas</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

ANIMALS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Sea turtle, leatherback	<i>Dermochelys coriacea</i>
Sea turtle, loggerhead	<i>Caretta caretta</i>
Sea turtle, olive ridley except where endangered	<i>Lepidochelys olivacea</i>
Sea-lion, Stellar eastern pop.	<i>Eumetopias jubatus</i>
Sea-lion, Stellar western pop.	<i>Eumetopias jubatus</i>
Seal, Guadalupe fur	<i>Arctocephalus townsendi</i>
Sheep, Peninsular bighorn Peninsular CA pop.	<i>Ovis Canadensis nelsoni</i>
Sheep, Sierra Nevada bighorn Sierra Nevada	<i>Ovis Canadensis sierra</i>
Shrew, Buena Vista Lake ornate	<i>Sorex ornatus relictus</i>
Shrike, San Clemente loggerhead	<i>Lanius ludovicianus mearnsi</i>
Shrimp, California freshwater	<i>Syncaris pacifica</i>
Skipper, Carson wandering	<i>Pseudocopaodes eunus obscures</i>
Skipper, Laguna Mountains	<i>Pyrgus ruralis lagunae</i>
Smelt, delta	<i>Hypomesus transpacificus</i>
Snail, Morro shoulderband (=Banded dune)	<i>Helminthoglypta walkeriana</i>
Snake, giant garter	<i>Thamnophis gigas</i>
Snake, San Francisco garter	<i>Thamnophis sirtalis tetrataenia</i>
Sparrow, San Clemente sage	<i>Amphispiza belli clementeae</i>
Steelhead Central Valley CA	<i>Oncorhynchus (=Salmo) mykiss</i>
Steelhead central CA coast	<i>Oncorhynchus (=Salmo) mykiss</i>
Steelhead northern CA	<i>Oncorhynchus (=Salmo) mykiss</i>
Steelhead south central CA coast	<i>Oncorhynchus (=Salmo) mykiss</i>
Steelhead southern CA coast	<i>Oncorhynchus (=Salmo) mykiss</i>
Stickleback, unarmored threespine	<i>Gasterosteus aculeatus williamsoni</i>
Sturgeon, North American green USA (CA) Southern Distinct Population Segment	<i>Acipenser medirostris</i>
Sucker, Lost River	<i>Deltistes luxatus</i>
Sucker, Modoc	<i>Catostomus microps</i>
Sucker, razorback entire	<i>Xyrauchen texanus</i>
Sucker, Santa Ana 3 CA river basins	<i>Catostomus santaanae</i>
Sucker, shortnose	<i>Chasmistes brevirostris</i>
Tadpole shrimp, vernal pool	<i>Lepidurus packardi</i>
Tern, California least	<i>Sterna antillarum browni</i>
Tiger beetle, Ohlone	<i>Cicindela ohlone</i>
Toad, arroyo (=arroyo southwestern)	<i>Bufo californicus (=microscaphus)</i>
Tortoise, desert USA, except in Sonoran Desert	<i>Gopherus agassizii</i>
Towhee, Inyo California	<i>Pipilo crissalis eremophilus</i>
Trout, bull USA, conterminous, lower 48 states	<i>Salvelinus confluentus</i>
Trout, Lahontan cutthroat	<i>Oncorhynchus clarki henshawi</i>
Trout, Little Kern golden	<i>Oncorhynchus aquabonita whitei</i>
Trout, Paiute cutthroat	<i>Oncorhynchus clarki seleniris</i>
Vireo, least Bell's	<i>Vireo bellii pusillus</i>
Vole, Amargosa	<i>Microtus californicus scirpensis</i>
Whale, blue	<i>Balaenoptera musculus</i>
Whale, finback	<i>Balaenoptera physalus</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

ANIMALS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Whale, humpback	<i>Megaptera novaeangliae</i>
Whale, killer Southern Resident DPS	<i>Orcinus orca</i>
Whale, Sei	<i>Balaenoptera borealis</i>
Whale, sperm	<i>Physeter catodon (=macrocephalus)</i>
Wolf, gray in lower 48 States, except where delisted and where EXPN Mexico.	<i>Canis lupus</i>
Woodrat, riparian (=San Joaquin Valley)	<i>Neotoma fuscipes riparia</i>

PLANTS	
COMMON NAME	SCIENTIFIC NAME
Allocarya, Calistoga	<i>Plagiobothrys strictus</i>
Alopecurus, Sonoma	<i>Alopecurus aequalis</i> var. <i>sonomensis</i>
Ambrosia, San Diego	<i>Ambrosia pumila</i>
Amole, purple	<i>Chlorogalum purpureum</i>
Baccharis, Encinitas	<i>Baccharis vanessae</i>
Barberry, island	<i>Berberis pinnata</i> ssp. <i>insularis</i>
Barberry, Nevin's	<i>Berberis nevinii</i>
Bedstraw, El Dorado	<i>Galium californicum</i> ssp. <i>sierrae</i>
Bedstraw, island	<i>Galium buxifolium</i>
Bird's beak, palmate-bracted	<i>Cordylanthus palmatus</i>
Bird's-beak, Pennell's	<i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>
Bird's-beak, salt marsh	<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>
Bird's-beak, soft	<i>Cordylanthus mollis</i> ssp. <i>mollis</i>
Bladderpod, San Bernardino Mountains	<i>Lesquerella kingie</i> ssp. <i>bernardina</i>
Bluecurls, Hidden Lake	<i>Trichostema austromontanum</i> ssp. <i>compactum</i>
Bluegrass, Napa	<i>Poa napensis</i>
Bluegrass, San Bernardino	<i>Poa atropurpurea</i>
Brodiaea, Chinese Camp	<i>Brodiaea pallid</i>
Brodiaea, thread-leaved	<i>Brodiaea filifolia</i>
Broom, San Clemente Island	<i>Lotus dendroideus</i> ssp. <i>traskiae</i>
Buckwheat, cushionbury	<i>Eriogonum ovalifolium</i> var. <i>vineum</i>
Buckwheat, lone (incl. Irish Hill)	<i>Eriogonum apricum</i> (incl. var. <i>prostratum</i>)
Bush-mallow, San Clemente Island	<i>Malacothamnus clementinus</i>
Bush-mallow, Santa Cruz Island	<i>Malacothamnus fasciculatus</i> var. <i>nesioticus</i>
Butterweed, Layne's	<i>Senecio layneae</i>
Button-celery, San Diego	<i>Eryngium aristulatum</i> var. <i>parishii</i>
Cactus, Bakersfield	<i>Opuntia treleasei</i>
Ceanothus, coyote	<i>Ceanothus ferrisae</i>
Ceanothus, Pine Hill	<i>Ceanothus roderickii</i>
Ceanothus, Vail Lake	<i>Ceanothus ophiophilus</i>
Centaury, spring-loving	<i>Centaurium namophilum</i>
Checker-mallow, Keck's	<i>Sidalcea keckii</i>
Checker-mallow, Kenwood Marsh	<i>Sidalcea oregana</i> ssp. <i>valida</i>
Checker-mallow, pedate	<i>Sidalcea pedata</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

PLANTS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Clarkia, Pismo	<i>Clarkia speciosa</i> ssp. <i>Immaculate</i>
Clarkia, Presidio	<i>Clarkia franciscana</i>
Clarkia, Springville	<i>Clarkia springvillensis</i>
Clarkia, Vine Hill	<i>Clarkia imbricate</i>
Clover, Monterey	<i>Trifolium trichocalyx</i>
Clover, showy Indian	<i>Trifolium amoenum</i>
Crownbeard, big-leaved	<i>Verbesina dissita</i>
Crownscale, San Jacinto Valley	<i>Atriplex coronata</i> var. <i>notatior</i>
Cypress, Gowen	<i>Cupressus goveniana</i> ssp. <i>goveniana</i>
Cypress, Santa Cruz	<i>Cupressus abramsiana</i>
Daisy, Parish's	<i>Erigeron parishii</i>
Dudleya, Conejo	<i>Dudleya abramsii</i> ssp. <i>parva</i>
Dudleya, marcescent	<i>Dudleya cymosa</i> ssp. <i>marcescens</i>
Dudleya, Santa Clara Valley	<i>Dudleya setchellii</i>
Dudleya, Santa Cruz Island	<i>Dudleya nesiotica</i>
Dudleya, Verity's	<i>Dudleya verityi</i>
Dudleya, Santa Monica Mountains	<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>
Dwarf-flax, Marin	<i>Hesperolinon congestum</i>
Evening-primrose, Antioch Dunes	<i>Oenothera deltoides</i> ssp. <i>howellii</i>
Evening-primrose, Eureka Valley	<i>Oenothera avita</i> ssp. <i>eurekensis</i>
Evening-primrose, San Benito	<i>Camissonia benitensis</i>
Fiddleneck, large-flowered	<i>Amsinckia grandiflora</i>
Flannelbush, Mexican	<i>Fremontodendron mexicanum</i>
Fringepod, Santa Cruz Island	<i>Thysanocarpus conchuliferus</i>
Gilia, Hoffmann's slender-flowered	<i>Gilia tenuiflora</i> ssp. <i>hoffmannii</i>
Gilia, Monterey	<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>
Goldfields, Burke's	<i>Lasthenia burkei</i>
Goldfields, Contra Costa	<i>Lasthenia conjugens</i>
Grass, Colusa	<i>Neostapfia colusana</i>
Grass, Eureka Dune	<i>Swallenia alexandrae</i>
Grass, Solano	<i>Tuctoria mucronata</i>
Gumplant, Ash Meadows	<i>Grindelia fraxino-pratensis</i>
Howellia, water	<i>Howellia aquatilis</i>
Indian paintbrush, San Clemente Island	<i>Castilleja grisea</i>
Jewelflower, California	<i>Caulanthus californicus</i>
Jewelflower, Metcalf Canyon	<i>Streptanthus albidus</i> ssp. <i>albidus</i>
Jewelflower, Tiburon	<i>Streptanthus niger</i>
Larkspur, Baker's	<i>Delphinium bakeri</i>
Larkspur, San Clemente Island	<i>Delphinium variegatum</i> ssp. <i>kinkiense</i>
Larkspur, yellow	<i>Delphinium luteum</i>
Layia, beach	<i>Layia carnosa</i>
Lessingia, San Francisco	<i>Lessingia germanorum</i> (=L.g. var. <i>germanorum</i>)
Lily, Pitkin Marsh	<i>Lilium pardalinum</i> ssp. <i>pitkinense</i>
Lily, Western	<i>Lilium occidentale</i>
Liveforever, Laguna Beach	<i>Dudleya stolonifera</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

PLANTS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Liveforever, Santa Barbara Island	<i>Dudleya traskiae</i>
Lupine, clover	<i>Lupinus tidestromii</i>
Lupine, Nipomo Mesa	<i>Lupinus nipomensis</i>
Malacothrix, island	<i>Malacothrix squalida</i>
Malacothrix, Santa Cruz Island	<i>Malacothrix indecora</i>
Mallow, Kern	<i>Eremalche kernensis</i>
Manzanita, Del Mar	<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>
Manzanita, lone	<i>Arctostaphylos myrtifolia</i>
Manzanita, Morro	<i>Arctostaphylos morroensis</i>
Manzanita, pallid	<i>Arctostaphylos pallida</i>
Manzanita, Presidio	<i>Arctostaphylos hookeri</i> var. <i>ravenii</i>
Manzanita, Santa Rosa Island	<i>Arctostaphylos confertiflora</i>
Mariposa lily, Tiburon	<i>Calochortus tiburonensis</i>
Meadowfoam, Butte County	<i>Limnanthes floccosa</i> ssp. <i>californica</i>
Meadowfoam, Sebastopol	<i>Limnanthes vinculans</i>
Mesa-mint, Otay	<i>Pogogyne nudiuscula</i>
Mesa-mint, San Diego	<i>Pogogyne abramsii</i>
Milk-vetch, Braunton's	<i>Astragalus brauntonii</i>
Milk-vetch, Clara Hunt's	<i>Astragalus clarianus</i>
Milk-vetch, Coachella Valley	<i>Astragalus lentiginosus</i> var. <i>coachellae</i>
Milk-vetch, coastal dunes	<i>Astragalus tener</i> var. <i>titi</i>
Milk-vetch, Cushenbury	<i>Astragalus albens</i>
Milk-vetch, Fish Slough	<i>Astragalus lentiginosus</i> var. <i>piscinensis</i>
Milk-vetch, Lane Mountain	<i>Astragalus jaegerianus</i>
Milk-vetch, Peirson's	<i>Astragalus magdalenae</i> var. <i>peirsonii</i>
Milk-vetch, triple-ribbed	<i>Astragalus tricarinatus</i>
Milk-vetch, Ventura Marsh	<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>
Monardella, willowy	<i>Monardella linoides</i> ssp. <i>viminea</i>
Morning-glory, Stebbins'	<i>Calystegia stebbinsii</i>
Mountain balm, Indian Knob	<i>Eriodictyon altissimum</i>
Mountain-mahogany, Catalina Island	<i>Cercocarpus traskiae</i>
Mustard, slender-petaled	<i>Thelypodium stenopetalum</i>
Navarretia, few-flowered	<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> (=N. <i>pauciflora</i>)
Navarretia, many-flowered	<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>
Navarretia, spreading	<i>Navarretia fossalis</i>
Niterwort, Amargosa	<i>Nitrophila mohavensis</i>
Onion, Munz's	<i>Allium munzii</i>
Orcutt grass, California	<i>Orcuttia californica</i>
Orcutt grass, hairy	<i>Orcuttia pilosa</i>
Orcutt grass, Sacramento	<i>Orcuttia viscida</i>
Orcutt grass, San Joaquin	<i>Orcuttia inaequalis</i>
Orcutt grass, slender	<i>Orcuttia tenuis</i>
Owl's-clover, fleshy	<i>Castilleja campestris</i> ssp. <i>succulenta</i>
Oxytheca, cushionbury	<i>Oxytheca parishii</i> var. <i>goodmaniana</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

PLANTS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Paintbrush, ash-grey	<i>Castilleja cinerea</i>
Paintbrush, soft-leaved	<i>Castilleja mollis</i>
Paintbrush, Tiburon	<i>Castilleja affinis ssp. neglecta</i>
Penny-cress, Kneeland Prairie	<i>Thlaspi californicum</i>
Pentachaeta, Lyon's	<i>Pentachaeta lyonii</i>
Pentachaeta, white-rayed	<i>Pentachaeta bellidiflora</i>
Phacelia, island	<i>Phacelia insularis ssp. insularis</i>
Phlox, Yreka	<i>Phlox hirsuta</i>
Piperia, Yadon's	<i>Piperia yadonii</i>
Polygonum, Scotts Valley	<i>Polygonum hickmanii</i>
Potentilla, Hickman's	<i>Potentilla hickmanii</i>
Pussypaws, Mariposa	<i>Calyptidium pulchellum</i>
Rock-cress, Hoffmann's	<i>Arabis hoffmannii</i>
Rock-cress, McDonald's	<i>Arabis macdonaldiana</i>
Rockcress, Santa Cruz Island	<i>Sibara filifolia</i>
Rush-rose, island	<i>Helianthemum greenei</i>
Sandwort, Bear Valley	<i>Arenaria ursina</i>
Sandwort, Marsh	<i>Arenaria paludicola</i>
Seablite, California	<i>Suaeda californica</i>
Sedge, white	<i>Carex albida</i>
Spineflower, Ben Lomond	<i>Chorizanthe pungens var. hartwegiana</i>
Spineflower, Howell's	<i>Chorizanthe howellii</i>
Spineflower, Monterey	<i>Chorizanthe pungens var. pungens</i>
Spineflower, Orcutt's	<i>Chorizanthe orcuttiana</i>
Spineflower, Robust (incl. Scotts Valley)	<i>Chorizanthe robusta (incl. vars. robusta and hartwegii)</i>
Spineflower, slender-horned	<i>Dodecahema leptoceras</i>
Spineflower, Sonoma	<i>Chorizanthe valida</i>
Spurge, Hoover's	<i>Chamaesyce hooveri</i>
Stonecrop, Lake County	<i>Parvisedum leiocarpum</i>
Sunburst, Hartweg's golden	<i>Pseudobahia bahiifolia</i>
Sunburst, San Joaquin adobe	<i>Pseudobahia peirsonii</i>
Sunflower, San Mateo woolly	<i>Eriophyllum latilobum</i>
Sunshine, Sonoma	<i>Blennosperma bakeri</i>
Taraxacum, California	<i>Taraxacum californicum</i>
Tarplant, Gaviota	<i>Deinandra increscens ssp. villosa</i>
Tarplant, Otay	<i>Deinandra (=Hemizonia) conjugens</i>
Tarplant, Santa Cruz	<i>Holocarpa macradenia</i>
Thistle, Chorro Creek bog	<i>Cirsium fontinale var. obispoense</i>
Thistle, fountain	<i>Cirsium fontinale var. fontinale</i>
Thistle, La Graciosa	<i>Cirsium loncholepis</i>
Thistle, Loch Lomond coyote	<i>Eryngium constancei</i>
Thistle, Suisun	<i>Cirsium hydrophilum var. hydrophilum</i>
Thornmint, San Diego	<i>Acanthomintha ilicifolia</i>
Thornmint, San Mateo	<i>Acanthomintha obovata ssp. duttonii</i>

FIGURE 6.2 (Cont'd)

ENDANGERED/THREATENED SPECIES LISTING - CALIFORNIA

PLANTS (Cont'd)	
COMMON NAME	SCIENTIFIC NAME
Tuctoria, Greene's	<i>Tuctoria greenei</i>
Vervain, Red Hills	<i>Verbena californica</i>
Wallflower, Ben Lomond	<i>Erysimum teretifolium</i>
Wallflower, Contra Costa	<i>Erysimum capitatum</i> var. <i>angustatum</i>
Wallflower, Menzies'	<i>Erysimum menziesii</i>
Watercress, Gambel's	<i>Rorippa gambellii</i>
Wild-buckwheat, southern mountain	<i>Eriogonum kennedyi</i> var. <i>austromontanum</i>
Woodland-star, San Clemente Island	<i>Lithophragma maximum</i>
Woolly-star, Santa Ana River	<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>
Woolly-threads, San Joaquin	<i>Monolopia (=Lembertia) congdonii</i>
Yerba santa, Lompoc	<i>Eriodictyon capitatum</i>

FIGURE 6.3
ENVIRONMENTAL SENSITIVITY MAP

APPENDIX A

RESPONSE RESOURCES

USCG CLASSIFIED OIL SPILL ORGANIZATIONS (OSROs)

Marine Spill Response Corporation (MSRC)	A-2
Patriot Environmental Services.....	A-2

COMPANY OWNED EQUIPMENT

Company Owned Spill Response Equipment.....	A-3
Communications Equipment	A-5

OSRO/CONTRACTOR CONTRACTS

Marine Spill Response Corporation (MSRC)	A-6
Patriot Environmental Services.....	A-7

Appendix A

Response Resources

The Company has identified sufficient response resources, by contract or other approved means to respond to a worst case discharge in each Response Zone identified in this Plan.

The following U.S. Coast Guard listed OSROs have been contracted to respond to spills originating from Company pipelines:

USCG Classified Oil Spill Removal Organization (OSRO) – SECTOR LOS ANGELES							
OSRO Name	Environment Type	Facility Classification Level				High Volume Port	Contract Responsibility
		MM	W1	W2	W3		
Marine Spill Response Corporation (MSRC) 3300 E. Spring St. Long Beach, CA 90806 (800) 259-6772 (Emergency) (703) 326-5600 (Non-Emergency) (562) 981-7600 (local)	River/Canal	X	X	X	X	Yes	This contractor is to provide the properly trained manpower and equipment to perform containment, clean up and proper disposal of spill material per the instructions of the QI.
	Inland	X	X	X	X		
	Open Ocean	X		X	X		
	Offshore	X		X	X		
	Nearshore	X		X	X		
	Great Lakes						
Patriot Environmental Services 508 East E St. # A Wilmington, CA 90744 (800) 624-9136 (24 Hr.) (562) 244-2222 (Luis Fukotake)	River/Canal	X				Yes	This contractor is to provide the properly trained manpower and equipment to perform containment, clean up and proper disposal of spill material per the instructions of the QI.
	Inland	X					
	Open Ocean						
	Offshore						
	Nearshore						
	Great Lakes						

Appendix A

Response Resources

COMPANY OWNED SPILL RESPONSE EQUIPMENT

Please note the facility does not own response equipment.

Skimmer / Pumps					
Type/Model	Year	Quantity	Capacity (Gal/Min)	Daily Effective Recovery Rate	Date Last Fuel Changed
		NONE			
Notes:					

Boom			
Type/Model	Year	Quantity	Size/Containment Area
	NONE		
Notes:			

Chemicals and Dispersant Equipment			
Amount	Date Purchased	Treatment Capacity	Storage Location
	NONE		
Notes:			

COMPANY OWNED SPILL RESPONSE EQUIPMENT (Cont'd)

Sorbents			
Type/Model/Year	Quantity	Size	Absorbent Capacity
	NONE		
Notes:			

Communication Equipment		
Type/Model	Year	Quantity
	NONE	

Fire Fighting Equipment and Protective Equipment		
Type/Model	Year	Quantity
ABC Fire Extinguishers, 30 lbs.	Current	5

Other (Heavy Equipment, Boats, etc.)		
Type/Model	Quantity	Storage Location
	NONE	
Notes:		

COMMUNICATIONS EQUIPMENT

The following communication systems are used for daily operations as well as emergency response operations:

- Cellular phones
- Landline phones
- Computers

MARINE SPILL RESPONSE CORPORATION



Brett G. Drewry
President and Chief Executive Officer

Marine Preservation Association
8777 N. Gainey Center Drive, Suite 165, Scottsdale, Arizona 85258
Telephone: (480) 991-5599 Facsimile: (480) 991-6085
E-mail: BDrewry@MPAz.org

July 1, 2009

Mr. Marcos Cazar
Purchasing Manager
THUMS Long Beach Company
111 W. Ocean Blvd., Suite 800
Long Beach, CA 90802

Dear Marcos:

It is my pleasure to welcome OXY Long Beach, Inc. as a new member of the Marine Preservation Association ("MPA"). OXY Long Beach, Inc.'s Membership Effective Date is today, July 1, 2009.

As you know, membership in MPA has entitled OXY Long Beach, Inc. to sign a Service Agreement with the Marine Spill Response Corporation ("MSRC") for plan citation purposes and for direct access to MSRC's considerable inventory of spill and emergency response resources should the need arise.

As a member of MPA, OXY Long Beach, Inc. also has the opportunity to participate in various advisory committees. These advisory committees help ensure that the needs of MPA members are fulfilled and provide a forum for discussions with MSRC personnel on various topics. Committee participants are selected each year from a list of nominees provided by member companies. If there is interest by OXY Long Beach, Inc. in nominating a company representative(s) to participate in any of the enclosed committees, please contact me.

Thank you for your membership in MPA, and we look forward to a long and supportive relationship with OXY Long Beach, Inc.

At any time, please let me know if MPA can be of assistance.

Yours very truly,

A handwritten signature in dark ink, reading 'Brett G. Drewry'.

cc: Dean Persinger, OXY Long Beach, Inc.

Judith Roos, MSRC Vice President, Marketing, Customer Services and Corporate Relations
Scott Morris, MSRC Vice President, California Region

MARINE SPILL RESPONSE CORPORATION
SERVICE AGREEMENT

EXECUTION INSTRUMENT

The MSRC SERVICE AGREEMENT attached hereto (together with this execution instrument, the "Agreement"), a standard form of agreement amended and restated as of September 27, 1996, is hereby entered into by and between

OXY LONG BEACH, INC.

[Name of COMPANY]

a corporation organized under the laws of the State of Delaware

[Type of entity and place of organization]

with its principal offices located at 111 W. Ocean Blvd., Suite 800, Long Beach, CA 90802
(the "COMPANY"), and MARINE SPILL RESPONSE CORPORATION, a nonprofit corporation organized under the laws of Tennessee ("MSRC"), and shall be identified as

SERVICE AGREEMENT No. LOMPA 282 [This is to be provided by MSRC.]

IN WITNESS WHEREOF, the parties hereto each have caused this Agreement to be duly executed and effective as of June 22, 2009.

OXY LONG BEACH, INC.

[COMPANY]

By: 

[signature]

Charles P. Plant

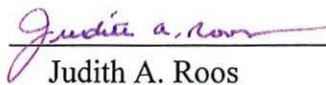
[print name]

Title: Vice President of Production

Address: 111 W. Ocean Blvd., Suite 800
Long Beach, CA 90802

Telephone: (562) 624 3400 Fax: (562) 624 624 3295

MARINE SPILL RESPONSE CORPORATION:

By: 

Judith A. Roos

Vice President

Marketing, Customer Services & Corporate Relations

220 Spring Street, Suite 500

Herndon, VA 20170

(703) 326-5617; Fax: (703) 326-5660

PATRIOT ENVIRONMENTAL SERVICES



State of California - The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Office of Spill Prevention and Response
1700 K Street, Ste 250
Sacramento, CA 95811
<http://www.dfg.ca.gov>
916-445-9338

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director



RECEIVED
JAN 16 2012

January 5, 2012

Mr. Dale Strieter
Technical Services Manager
Patriot Environmental Services
508 East E Street
Wilmington, California 90744

Dear Mr. Strieter:

SUBJECT: OSRO RATING LETTER

This letter is in response to your Oil Spill Response Organization (OSRO) application received on November 7, 2011. Pursuant to Title 14, California Code of Regulations, section 819, Patriot Environmental Services is rated to deploy the amounts and capacities of equipment in the time frames indicated on the enclosed OSRO Rating Response Matrix. Unless this rating is modified, suspended, or revoked, this rating letter shall remain valid until December 12, 2014 (14, CCR 819.06).

OSRO Ratings are based on the application, verification of actual services provided, equipment and resources available, and established subcontracts and agreements. You are required to notify the Administrator of any significant reductions in equipment or personnel levels in advance, if planned, or within 24 hours of becoming aware of such changes.

If you have any questions, you may contact Mr. Jeff Poteet, at telephone number (916) 323-6285 or by e-mail at jpoteet@ospr.dfg.ca.gov.

Sincerely,


Scott D. Schaefer
Administrator (Acting)

OSRO RATING RESPONSE MATRIX		NAME: Patriot Environmental Services					Expires: December 12, 2014				
Hours		0	1	2	4	6	12	18	24	36	60
ACP 4 Pt. Hueneme & Santa Barbara Channel											
Containment Boom (Feet)		600*		2,000		2,000					
Recovery (Bbls)				3,125		23,437					
Storage (Bbls)				425		5,000					
Shoreline Protection: **											
ACP 5 LA/LB South - Coastal											
Containment Boom (Feet)		600*		2,000	2,000	4,000					
Recovery (Bbls)				3,125	13,280	23,437	23,437	27,343	31,250	46,875	78,125
Storage (Bbls)				260	520	12,000					
Shoreline Protection: **											
ACP 5 LA/LB South - Harbor											
Containment Boom (Feet)		600*		2,000	2,000	4,000					
Recovery (Bbls)				3,125	13,280	23,437	23,437	27,343	31,250	46,875	78,125
Storage (Bbls)				260	520	12,000					
Shoreline Protection: **											
ACP 6 Coastal		OPRA (Queens Gate)									
Containment Boom (Feet)		600*		2,000	2,000	4,000					
Recovery (Bbls)				3,125	13,280	23,437	23,437	27,343	31,250	46,875	78,125
Storage (Bbls)				260	520	12,000					
Shoreline Protection: **											
ACP 6 San Diego Bay											
Containment Boom (Feet)		600*		2,000	2,000	4,000					
Recovery (Bbls)				3,125	13,280	23,437	23,437	27,343	31,250	46,875	78,125
Storage (Bbls)				260	520	12,000					
Shoreline Protection: **											

* 24 hr advanced noticed required

** 24 hr advanced notice required for all time frames

**BOOM****819.02 (b) (1) (A)**

Total of 21,400' of 6" x 12" Harbor Boom.

BOOM**819.02 (b) (1) (B-F)**

LENGTH	MAKE/MODEL	FREEBOARD / DRAFT	CONNECTOR TYPE	OPERATING ENVIRONMENT	ANCHORING SYSTEM	LOCATION	STORED
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	W	Trailer
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	W	Trailer
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	W	In Harbor on P1 Barge
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	SD	Trailer
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	SD	Trailer
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	SD	Trailer
1000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	SD	Vessel
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	BF	Trailer
1000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	IE	Trailer
1000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	IE	Trailer
400'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	BF	Trailer
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	V	Trailer
2000'	Kepner / Seacurtain	6" / 12"	ASTM F2438- 04	Rivers, Lakes,Harbor	Danforth	V	Trailer

Abbreviations for Chart above: W-Wilmington, SD-San Diego, BF-Bakersfield, IE-Inland Empire, SC-Santa Clarita, V-Ventura

All Boom above is dedicated Patriot OSRO-owned and controlled.

**SKIMMERS****19.02 (b) (2) (A-I)**

QUANTITY LOCATION	MAKE/MODEL	OPERATING ENVIRONMENT	CURRENT	TYPE	NAMEPLATE CAPACITY PER UNIT	EDRC	SKIMMER STORAGE CAPACITY	SKIMMER EXTERNAL CAPACITY	DRAFT
1 / W	Skim Pak/4300	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3257 B/D	651 B/D	0	1000 + BBL	6.6"
1 / W	Skim Pak/4300	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3257 B/D	651 B/D	0	1000 + BBL	6.6"
1 / W	Elastec/Drum Magnum 100	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3428 B/D	2742 B/D	0	1000 + BBL	20"
1 / W	Elastec/Drum Magnum 100G	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	6857 B/D	5484 B/D	0	1000 + BBL	20"
1 / SD	Elastec/Drum Magnum 100G	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	6857 B/D	5484 B/D	0	1000 + BBL	20"
1 / V	Elastec/Drum Magnum 100G	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	6857 B/D	5484 B/D	0	1000 + BBL	20"
1 / W	Komara/K12 Disc	Rivers, Lakes,Harbor	< .5 KNOTS	ST*	2712 B/D	542 B/D	0	1000 + BBL	16"
1 / W	Desmi/ Terminator	Rivers, Lakes,Harbor	< 2 KNOTS	ST* / AD*	15085 B/D	3017 B/D	0	1000 + BBL	28"
1 / W	Desmi/ Terminator	Rivers, Lakes,Harbor	< 2 KNOTS	ST* / AD*	15085 B/D	3017 B/D	0	1000 + BBL	28"
1 / W	Desmi/ Terminator	Rivers, Lakes,Harbor	< 2 KNOTS	ST* / AD*	15085 B/D	3017 B/D	0	1000 + BBL	28"
1 / W	HIB	Ocean,Rivers, Lakes,Harbor	< 5 KNOTS	ST* / AD*	100000 B/D	70000 B/D	0	1000 + BBL	24"
1 / SD	Skim Pak/4300	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3257 B/D	651 B/D	0	1000 + BBL	6.6"
1 / SD	Skim Pak/4300	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3257 B/D	651 B/D	0	1000 + BBL	6.6"
1 / BF	Elastec/Drum Magnum 100	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3428 B/D	2742 B/D	0	1000 + BBL	20"
1 / BF	Skim Pak/4300	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3257 B/D	651 B/D	0	1000 + BBL	6.6"
1 / V	Skim Pak/4300	Rivers, Lakes,Harbor	< 2 KNOTS	ST*	3257 B/D	651 B/D	0	1000 + BBL	6.6"

Abbreviations for Chart above: W-Wilmington, SD-San Diego, BF-Bakersfield, V-Ventura

* ST- Stationary *AD-Advancing

All Skimmers above are dedicated Patriot OSRO-owned and controlled.

**RESPONSE VESSELS****819.02 (b) (3) (A-J)**

VESSEL NAME/ LOCATION	LENGTH/ BEAM/DRAFT	DESIGN	DOC/REG	OPERATING ENVIRONMENT	TOW ABILITY	HP	BOOM STOWED	PUMP RATE	DESIGN LIMITS
308 Colorado (W)	21'8'6"/24"	WORK	CF7229UH	HARBOR, LAKES, RIVERS	Boom Only	150	0	N/A	INLAND/ NEARSHORE
310 Oregon (W)	26'8'6"/26"	WORK	CF7231UH	OCEAN,HARBOR,LA KES,RIVER	Boom Only	TWIN 90	0	N/A	INLAND/ NEARSHORE
311 Jersey (W)	24'9'6"/42"	WORK	CF7233UH	OCEAN,HARBOR,LA KES,RIVER	Boom Only	TWIN 150'S	0	N/A	INLAND/ NEARSHORE
300 MAKO (W)	21'7'9"/24"	WORK	CF4713KB	HARBOR, LAKES, RIVERS	Boom Only	225	0	N/A	INLAND/ NEARSHORE
SKIFFS (W) 8 TOTAL	14'55"/15"	WORK	Pending	HARBOR, LAKES, RIVERS	Boom Only	9.9	0	N/A	INLAND
307 Texas (SD)	26'8'6"/25"	WORK	DL3513Z	OCEAN,HARBOR,LA KES,RIVER	Boom Only	150	800'	N/A	INLAND/ NEARSHORE
313 Delaware (SD)	28'10'/30"	WORK	CF7159UH	OCEAN,HARBOR,LA KES,RIVER	Boom Only	TWIN 90	0	N/A	INLAND/ NEARSHORE
305 California (SD)	20'954"/20"	WORK	CF2433PD	HARBOR, LAKES, RIVERS	Boom Only	150	0	N/A	INLAND/ NEARSHORE
SD 25 WORKSKIFF (SD)	20'95"/25"	WORK	Pending	HARBOR, LAKES, RIVERS	Boom Only	25	0	N/A	INLAND/ NEARSHORE
SKIFF (SD)	14'55"/15"	WORK	Pending	HARBOR, LAKES, RIVERS	Boom Only	N/A	0	N/A	INLAND/ NEARSHORE
312 Nevada (BF)	17'60"/20"	WORK	WN5986RN	HARBOR, LAKES, RIVERS	Boom Only	60	0	N/A	INLAND/ NEARSHORE
Baker 25 (BF)	20'95"/20"	WORK	Pending	HARBOR, LAKES, RIVERS	Boom Only	25	0	N/A	INLAND/ NEARSHORE
SKIFF (BF)	14'55"/15"	WORK	Pending	HARBOR, LAKES, RIVERS	Boom Only	8	0	N/A	INLAND/ NEARSHORE
Vent 25 WORKSKIFF (V)	20'95"/20"	WORK	Pending	HARBOR, LAKES, RIVERS	Boom Only	25	0	N/A	INLAND/ NEARSHORE
301 Arizona (V)	27'8'6"/20"	WORK	CF4920NP	OCEAN,HARBOR,LA KES,RIVER	Boom Only	TWIN 200'S	0	N/A	INLAND/ NEARSHORE

**RECOVERED OIL STORAGE****819.02 (b) (4) (A-E)**

TYPE/NAME/ LOCATION	OFFICIAL #	LENGTH / BEAM/ DRAFT	MAX CAPACITY BBLs
TANK/ THOMPSON/BE	T-3	N/A	120
TANK/ STAINLESS/W	T-4	N/A	120
TANK/PERTO/V	T-5	N/A	120
TANK/ THOMPSON/ SC	T-6	N/A	120
TANK/HEIL/SC	T-7	N/A	120
TANK/ACRO/SC	T-8	N/A	120
TANK/ACRO/SD	T-9	N/A	120
TANK/WRIGHT/ W	T-10	N/A	120
TANK/WRIGHT/ W	T-11	N/A	120
TANK/WRIGHT/ W	T-12	N/A	120
TANK/WRIGHT/ W	T-13	N/A	120
TANK/WRIGHT/ W	T-14	N/A	120
TANK/HEIL/IE	T-15	N/A	120
TANK/HEIL/SD	T-16	N/A	120
TANK/ THOMPSON/BE	T-20	N/A	120
Truck/Ford/W	50	N/A	50
Truck/Peterbilt/V	70	N/A	70
Truck/Peterbilt/W	70	N/A	70
Truck/Peterbilt/ SD	70	N/A	70
Truck/Peterbilt/ SD	70	N/A	70

**RECOVERED OIL STORAGE** *cont..***819.02 (b) (4) (A-E)**

TYPE/NAME/ LOCATION	OFFICIAL #	LENGTH / BEAM/ DRAFT	MAX CAPACITY	QUANTITY
BLADDER/FLEXI TANK/W	B2	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/W	B3	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/W	B5	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/W	B6	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/W	B7	30X60X4	1000 BBL	1
BLADDER/FLEXIT ANK/W	B11	80X80X5	3500 BBL	1
BLADDER/FLEXI TANK/V	B8	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/V	B4	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/SD	B1	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/W	B9	30X60X4	1000 BBL	1
BLADDER/FLEXI TANK/W	B10	30X60X4	1000 BBL	1

Abbreviations for Chart above: W-Wilmington, SD-San Diego, BF-Bakersfield,
V-Ventura, SC-Santa Clarita, IE-Inland Empire

All storage tanks, bladders and trucks are Patriot dedicated OSRO Owned and
Controlled.

APPENDIX B

WORST CASE DISCHARGE ANALYSIS AND SCENARIOS

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INTRODUCTION

This appendix identifies potential causes for oil discharges and discusses the response efforts that are necessary for successful mitigation. Included in this appendix are hypothetical scenarios for various types of spills that have the potential to occur along the system. It is anticipated that the contracted Oil Spill Removal Organization (OSRO) will respond to spills in a consistent manner regardless of the location. Therefore, the guidelines discussed in this appendix will apply to all spills whenever possible.

DOT/PHMSA requires that pipeline operators calculate a worst case discharge amount for each response zone. The calculations and descriptions are as follows:

DOT/PHMSA Discharge Volume Calculation

- **Worst Case Discharge**
The largest volume (Bbls) of the following:
 - *Pipeline's maximum release time (hrs), plus the maximum shutdown response time (hrs), multiplied by the maximum flow rate (bph), plus the largest line drainage volume after shutdown of the line section.*
 - OR --*
 - *Largest foreseeable discharge for the line section is based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective action or preventive action taken.*
 - OR --*
 - *Capacity of the single largest breakout tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system.*

Scenario Types

The occurrence of a Worst Case Discharge (WCD) could be the result of any number of scenarios along the pipeline system including:

- Explosions and/or Fire
- Line Break or Leak
- Abnormal Pipeline Operations
- Medical Emergency
- Earthquake, Tsunami, or Other Natural Disaster

The response actions to each of these scenarios are outlined in Section 3.1 and Figure 3.1. The response resources are identified in a quick reference format in Figure 2.6. Pipeline response personnel list/telephone numbers and other internal/external resources telephone numbers are detailed in Figures 2.2 and 2.5.

RESPONSE CAPABILITY SCENARIOS

PIPELINE WORST CASE DISCHARGE FROM THE SANSINENA FIELD

(b) (7)(F)

(b) (7)(F)

11. The type of material that could be discharged is crude oil.

Volume

This WCD scenario involves a line segment using the pipeline's maximum release time in hours, plus the maximum shutdown response time in hours, multiplied by the maximum flow rate expressed in barrels per hour (bph), plus the largest line drainage volume after shutdown of the line section. (b) (7)(F)

Pipeline maximum release time¹
 Maximum shutdown time²
 Maximum flow rate³
 Largest line drainage volume⁴
 Worst case discharge

(b) (7)(F)

This WCD scenario does not involve breakout tankage. Therefore single largest volume breakout tank adjustments/calculations are not considered in this WCD.

Note: Adverse weather will not affect detection or shut down times.

RESPONSE CAPABILITY SCENARIOS (Cont'd)

PIPELINE WORST CASE DISCHARGE AT THE SANSINENA FIELD RESPONSE ZONE = (b) (7) (F)

Response Requirement

The Company has identified sufficient response resources, by contract or other approved means, to respond to a worst case discharge to the maximum extent practicable. These response resources include:

- Resources capable of arriving at the staging area within the applicable response tier requirements for non-high volume areas (Tier 1 = 12 hours; Tier 2 = 36 hours; Tier 3 = 60 hours).
- Resources capable of oil recovery in inclement weather conditions (i.e. heavy rain).

Notes:

- Contracted and Company owned equipment and manpower resources are detailed in Appendix A (USCG Classified OSRO).
- Telephone references are provided in Figures 2.6.

APPENDIX C

EMERGENCY PREPLANNING

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EMERGENCY PREPLANNING

C.1 PIPELINE LEAK DETECTION SYSTEMS

Leak detection is accomplished by personnel surveillance. All pipelines are inspected periodically during field surveillance. Any leak will be repaired immediately.

C.2 PIPELINE LEAK INSPECTION SYSTEMS

Visual observations during normal routine operations are made of the exposed portions of pipelines to locate signs of corrosion leaks, coating loss or excessive wear. In addition, pipeline right of ways (rows) are inspected during normal routine operations. Records on all pipeline failures are kept maintained and are available to DOT/PHMSA upon request.

Based on sound engineering judgment the pipeline is replaced or repaired as necessary.

C.2.A Visual Inspection

The pipeline and adjacent row areas are periodically visually inspected for leaking oil by facility personnel.

C.2.B Cathodic Protection

All pipelines are coated and have cathodic protection. These pipelines are subject to periodic cathodic protection inspections.

C.2.C External Corrosion Control

Whenever buried portions of the pipeline are exposed for any reason, the pipe will be examined for evidence of external corrosion, coating deterioration, and cathodic protection effectiveness. If corrosion is found, a detailed evaluation will be performed to determine the extent of corrosion.

Exposed portions of the pipeline are painted and/or coated for corrosion protection.

C.2.D Valve Maintenance

All valves are inspected annually to ensure proper working condition.

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TRAINING AND DRILLS

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D.1 RESPONSE TEAM TRAINING

The Oil Spill Removal Organization through contract to the Company provides trained personnel to respond to pipeline discharges. The company contracts separately qualified personnel related to repair pipeline ruptures after the response is complete.

All personnel & contract personnel know:

- Their responsibilities under the Plan.
- The name, address and procedures for contacting the operator on a 24-hour basis.
- The name of, and procedures for contacting the Qualified Individual on a 24-hour basis.

All reporting personnel know:

- The content of the information summary of the Response Plan.
- The toll-free telephone number of the National Response Center.
- The notification process.

All response personnel know:

- The characteristics and hazards of the oil discharged.
- The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions, and the appropriate corrective actions.
- The steps necessary to control an accidental discharge of oil and to minimize the potential for fire, explosion, toxicity or environmental damage.
- Proper use of personal protective equipment and fire-fighting procedures commensurate with their job description and level of training.

Training records for each individual trained are maintained at headquarters.

The Company requires that all response personnel, including contractors and casual labor, have the appropriate training necessary to serve on a response team during an emergency. Contract personnel will receive training in the following:

Facility Response Plan Review

- All Response Team Members should review their Oil Spill Response Plan whenever their job position or responsibilities change under the Plan. A copy of this Plan will be available at all times to Team Members.

HAZWOPER (29 CFR 1910.120)

- Federal and state regulations require that response team members maintain up-to-date HAZWOPER training necessary to function in their assigned positions. At a minimum, Company employees will receive “First Responder Awareness Level” training. All “Non-Company” personnel responding to an incident must satisfy the applicable HAZWOPER training requirements of 29 CFR 1910.120.

Appendix D

Training and Drills

D.1 RESPONSE TEAM TRAINING (Cont'd)**HAZWOPER (29 CFR 1910.120) (Cont'd)**

OSHA HAZWOPER TRAINING REQUIREMENTS		
Responder Classification	Required Training Hours	Refresher
29CFR 1910.120(q) Emergency Response		
First Responder - Awareness Level	2-4 hrs demonstration of competency	same
First Responder - Operations Level	8 hrs	8 hrs
Hazardous Materials Technician	24 hrs plus competency	8 hrs
Hazardous Materials Specialist	24 hrs plus competency in specialized areas	8 hrs
Incident Commander	24 hrs plus competency	8 hrs
29CFR 1910.120(e) Clean Up Sites		
General Site Workers	40 hrs / 3 days on the job training	8 hrs
Occasional Workers (Limited Tasks)	24 hrs / 1 day on the job training	8 hrs
General Site Workers (Low Hazard)	24 hrs / 1 day on the job training	8 hrs
Supervisors	8 hrs supervisor training	8 hrs
29CFR 1910.120(p)(7)(8) RCRA TSD Sites		
New Employees	24 hrs	8 hrs
Current Employees*	24 hrs	8 hrs

* Previous work experience and/or training certified as equivalent by employer.

HAZWOPER Training Levels

Company employees shall never work beyond their level of training or capabilities during an emergency. Below is a summary of the expected training levels for each job title for company employees who may be expected to respond to an emergency situation.

Job Title	Hazpower Training Level	Initial Training Required	Annual Refresher Training Required
Pipeline Operations Manager Plant Operations Manager Plant Maintenance Manager	Incident Commander (IC)	24 hr	Whatever it takes to cover appropriate topics (See duties below)
Pipeline Foreman	Incident Commander (IC)	24 hr	Whatever it takes to cover appropriate topics (See duties below)
Maintenance Foreman	Incident Commander (IC)	24 hr	Whatever it takes to cover appropriate topics (See duties below)
DOT Pipeline Compliance Supervisor	Incident Commander (IC)	24 hr	Whatever it takes to cover appropriate topics (See duties below)
EH&S Specialist	Incident Commander (IC)	24 hr	Whatever it takes to cover appropriate topics (See duties below)

D.1 RESPONSE TEAM TRAINING (Cont'd)***HAZWOPER Training Levels (Cont'd)***

Job Title	HAZPOWER Training Level	Initial Training Required	Annual Refresher Training Required
Pipeline Operator, A&B Plant Operator	1 st Responder Operations (FRO)	8 hr	Whatever it takes to cover appropriate topics (See duties below)
Production Operator, A&B	1 st Responder Operations (FRO)	8 hr	Whatever it takes to cover appropriate topics (See duties below)
Instrument Technician	1 st Responder Operations (FRO)	8 hr	Whatever it takes to cover appropriate topics (See duties below)
Mechanic	1 st Responder Operations (FRO)	8 hr	Whatever it takes to cover appropriate topics (See duties below)
Maintenance Worker	1 st Responder Operations (FRO)	8 hr	Whatever it takes to cover appropriate topics (See duties below)

HAZPOWER: FRO Description of Training Required

The First Responder needs to be trained in the following areas:

- Knowledge of the basic hazard and risk assessment techniques.
- Know how to select and use proper PPE provided to the first responder operational level.
- An understanding of basic hazardous materials terms.
- Know how to perform basic control, containment, and/or confinement operations and rescue injured or contaminated persons within the capabilities of the resources and PPE available with their unit.
- Know how to implement basic equipment, victim, and rescue personnel decontamination procedures.

HAZPOWER: IC Description of Training Required

The Incident Commander needs to be trained in the following areas:

- Know and be able to implement the employer's incident command system.
- Know how to implement the employer's emergency response plan.
- Know and understand the hazards and risks associated with employees working in chemical protective clothing.
- Know of the state emergency response plan and of the Federal Regional Response Team.
- Know and understand the importance of decontamination procedures.

D.1 RESPONSE TEAM TRAINING (Cont'd)

HAZPOWER: Refresher Training

- Annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly.
- A statement shall be made of the training or competency; and if a statement of competency is made, the employer shall keep a record of the methodology used to demonstrate competency.

Incident Command System

- Contract personnel will receive ICS training and may also receive supplemental training in other, related general topics.

Volunteers

- The Company will not use volunteers for emergency incident response and no Company provisions exist to train them. Volunteers may be used by government response entities, as allowed by applicable policies/procedures.

Training Records Maintenance

- Contract personnel emergency response training records are maintained at Corporate Headquarters. Training records for response personnel will be maintained for as long as personnel have duties in this response plan.

Contractor Training

- The Company also recognizes that contract personnel must also have sufficient training to respond to emergency response situations. The Company communicates this training need to its key contractors during contract negotiations and often specifically spells out this requirement in its contracts. The Company also tends to use well-known spill response contractors whose reputation and experience levels help ensure personnel who respond will be trained to appropriate levels.

Training Qualifications

- As no formalized method of certifying training instructors has been provided by OSHA, The Company ensures the competency of its instructors and training organizations by selecting trainers and/or organizations with professional reputations and extensive hands-on and classroom experience in their subject matter. Company personnel with responsibility to coordinate the training program also conduct periodic informal audits of training courses selected for the Company's training program to ensure their suitability for the program.

D.2 RESPONSE TEAM EXERCISES

Contract operators, government agencies, and other resources must participate in response exercises required by Federal, state, or local regulations and as detailed in the “National Preparedness for Response Exercise Program (PREP) Guidelines”. The Company will conduct announced and unannounced drills to maintain compliance, and each plan-holder must conduct at least one exercise annually. The Company Management will be responsible for the planning, carrying out and monitoring of the drill exercises. The following table lists the triennial exercise cycle for facilities (see PREP Guidelines for full details).

Triennial Cycle		
Total Number	Frequency	Exercise Type/Description
12	Quarterly	QI Notification Exercise (Unannounced)
3	Annual	Equipment Deployment Exercise (<i>Consists entirely of OSRO equipment</i>).
3	Annual	Spill Management Team Tabletop Exercise
3	Not more than Tri-annually	Unannounced Exercise (<i>not a separate exercise</i>) Actual response can be considered as an unannounced exercise.
NOTE: All response plan components must be exercised at least once in the Cycle.		

Records of equipment deployment exercises shall be maintained on file at the Facility and Company Headquarters for a period of at least five (5) years.

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between facility personnel and the QI(s) and/or designated alternate(s). At least once each year, one of the notification exercises should be conducted during non-business hours.
- **Objective:** Contact must be made with a QI or designated alternate, as identified in the Plan.
- **General:** All personnel receiving notification shall respond to the notification and verify their receipt of the notification. Personnel who do not respond should be contacted to determine whether or not they received the notification.

Emergency Procedure Exercise (optional)

- **Scope:** Exercise the emergency procedures for the facility to mitigate or prevent any discharge or substantial threat of a discharge of oil or hazardous material from facility operational activities associated with oil transfers.
- **Objective:** Conduct an exercise of the facility's emergency procedures to ensure personnel knowledge of the actions to be taken to mitigate a spill. This exercise may be a walk-through of the emergency procedures.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Emergency Procedure Exercise (optional) (Cont'd)

- **Optional:** This is offered as an optional exercise to provide facilities with an exercise that may be conducted unannounced to fulfill the internal unannounced exercise requirement.

Semi-Annual/Annual Equipment Deployment Exercise (for facilities with equipment)

- **Scope:** Deploy and operate facility response equipment identified in the response plan. The equipment to be deployed must include the following, at a minimum:
 - 1,000 feet of representative type of boom;
 - one of each type of skimming system; or
 - the equipment necessary to respond to the facility's Small/Average Most Probable Discharge (AMPD), whichever is less.
- **Objective:** Demonstrate personnel's ability to deploy and operate response equipment. Ensure that the response equipment is in proper working order.
- **General:** The Facility may take credit for actual equipment deployment to a spill, or for training sessions, as long as the activities are properly documented.

Annual Equipment Deployment Exercise (OSRO-owned equipment)

- **Review:** The Facility should verify that the OSRO(s) has completed the equipment deployment exercise requirements and has maintained the necessary documentation. The OSRO may deploy equipment at any location, so long as it occurs within an operating environment similar to the Facility's.
- **Scope:** USCG certified OSRO's must ensure and document that an exercise or response has been conducted in each response area in which they are certified. Non-certified OSRO's must deploy and operate response equipment identified in this response plan. The equipment to be deployed must include the following, at a minimum:
 - 1,000 feet of each type of boom listed in the plan.
 - One of each type of skimming system listed in the plan.
- **Objective:** OSRO must demonstrate the ability of the personnel (OSRO) to deploy and operate response equipment (OSRO). Ensure that the response equipment (OSRO) is in proper working order.

Annual Response Team Tabletop Exercise

- **Scope:** Exercise the response team's organization, communication, and decision-making in managing a spill response. Each team identified within the plan must conduct an annual Response Team Tabletop Exercise.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Annual Response Team Tabletop Exercise (Cont'd)

- **Objective:** Exercise the response team in a review of the following:
 - Knowledge of the Plan.
 - Proper notifications.
 - Communications system.
 - Ability to access an OSRO.
 - Coordination of internal spill response personnel.
 - Review of the transition from a local team to a regional team.
 - Ability to effectively coordinate response activity with the National Response System (NRS) Infrastructure.
 - Ability to access information in the Area Contingency Plan.
- **General:** A minimum of one Response Team Tabletop Exercise in a triennial cycle will involve a Worst-Case Discharge scenario.

Unannounced Exercise

- An unannounced exercise is not a separate exercise. Any of the previously described exercises may be used as an unannounced exercise, except for the Quarterly QI Notification and annual OSRO-owned Equipment Deployment. An unannounced exercise is where the exercise participants do not have prior knowledge of the exercise, as would be the situation in an actual spill incident.

Government-Initiated Unannounced Exercise

- **Scope:** The Facility is required to participate in only one unannounced exercise every 36 months from the date of the last government-initiated unannounced exercise.
 - Exercises are limited to approximately four hours in duration.
 - Exercises would involve response to a Small/Average Most Probable Discharge scenario.
 - Exercise would involve equipment deployment to respond to a spill scenario.
- **Objective:** Conduct proper notifications to respond to unannounced scenario of a Small/Average Most Probable Discharge.
 - Demonstrate that the response is timely, conducted with an adequate amount of equipment for the scenario, and properly conducted.
- **General:** This exercise is only applicable to those facilities which are randomly chosen. Area Exercises

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Government-Initiated Unannounced Exercise (Cont'd)

- **Objective:** The purpose of the area exercise is to exercise the entire response community in a particular area. An area is defined as “that geographic area for which a separate and distinct Area Contingency Plan has been prepared, as described in OPA 90.” The response community includes the Federal, State, and local government and industry. The area exercises are designed to exercise the government and industry interface for spill response.
- **General:** The goal is to ensure that all areas of the country are exercised triennially. All of the area exercises will be developed by an exercise design team. The exercise design team is comprised of representatives from the Federal, State, and local government and industry. A Lead Plan Holder would lead each area exercise. The Lead Plan Holder is the organization (government or industry) that holds the primary plan that is exercised in the area exercise. The Lead Plan Holder would have the final word on designing the scope and scenario of the exercise.

Exercise Documentation

- All exercises should be documented and maintained at the facility; documentation should specify:
 - The type of exercise;
 - Date and time of the exercise;
 - A description of the exercise;
 - The objectives met in the exercise;
 - The components of the response plan exercised; and
 - Lessons learned.
- Exercise documentation should be kept on file for the required length of time depending on the regulating agency (three (3) years for the U.S. Coast Guard and/or DOT/PHMSA and five (5) years for the U.S. Environmental Protection Agency).

D.3 EMERGENCY RESPONSE CRITIQUE AND REPORT

All major emergencies are to be critiqued by the key supervisors involved as soon as possible after the emergency is concluded. All aspects of the emergency shall be reviewed to determine if changes shall be made. A report shall be prepared which outlines the procedure followed in solving the emergency and forwarded to the appropriate supervisor for distribution to the appropriate employees.

Measures shall be employed to analyze the accident or failure and to determine the cause. In some instances, especially in the case of material failure, laboratory analysis may be required. Review "Failure Investigation" procedures as a guideline for reviewing the incident. Refer to the company Operations and Maintenance Manual for details on failure investigation.

In addition, after each emergency, the company will conduct a post accident review of employee activities to determine whether the emergency response procedures were effective. If deficiencies are found in the emergency response plan or in the actions taken by employees, the company will take appropriate action.

Actions taken by other response groups shall be included in the post accident critique. Critique results shall be discussed with these groups so they will be aware of any deficiencies in their response.

Updating and Revising Emergency Procedures

After completion of the emergency response critique, emergency response procedures shall be updated and revised as appropriate. Emergency response agencies and contractors shall be informed of any procedure changes that affect how they would respond to a company pipeline emergency.

Training

After completion of the emergency response critique, the appropriate company personnel will be trained to assure they are knowledgeable of the emergency procedures. The supervisor or the DOT Pipeline Coordinator will verify that employee training is effective by administering a written exam, conducting performance evaluations, or conducting table top exercises.

Federal Pipeline Safety Regulations, Part 195.403 DOT requires that:

- Each operator shall establish and conduct a continuing training program to instruct operating and maintenance personnel to:
 - Carry out the operating and maintenance, and emergency procedures established under Section 195.402 that relate to their assignments;
 - Know the characteristics and hazards of the hazardous liquids transported, including, in the case of flammable HVL, flammability of mixtures with air, odorless vapors, and water reactions;
 - Recognize conditions that are likely to cause emergencies, predict the consequences of facility malfunctions or failures and hazardous liquid spills, and to take appropriate corrective action;

D.3 EMERGENCY RESPONSE CRITIQUE AND REPORT (Cont'd)

Training (Cont'd)

- Take steps necessary to control any accidental release of hazardous liquid and to minimize the potential for fire, explosion, toxicity, or environmental damage;
 - Learn the proper use of firefighting procedures and equipment and breathing apparatus by utilizing, where feasible, a simulated pipeline emergency condition; and
 - In the case of maintenance personnel, to safely repair facilities using appropriate special precautions, such as isolation and purging, when highly volatile liquids are involved.
- **At intervals not exceeding 15 months, but at least once each calendar year, each operator shall:**
 - Review with personnel their performance in meeting the objectives of the training program set forth in paragraph (a) of this section; and
 - Make appropriate changes to the training program as necessary to ensure that it is effective.
 - Each operator shall require and verify that its supervisors maintain a thorough knowledge of that portion of the procedures established under Section 195.402 for which they are responsible or ensure compliance.

Training Program

The training program consists of courses, equipment and systems drawings, operation and maintenance performance check-offs, and training problems.

The supervisor shall review the training program and the personnel's performance with the program at intervals not exceeding 15 months, but at least once each calendar year. The training shall be changed, if necessary, to be more effective due to changing conditions, environment, technology, etc.

D.4 INCIDENT COMMAND SYSTEM

The Incident Command System is intended to be used as a management tool to aid in mitigating all types of emergency incidents. This system is readily adaptable to very small emergency incidents as well as more significant or complex emergencies. The Incident Command System (ICS) utilizes the following criteria as key operational factors:

- Assigns overall authority to one individual
- Provides structured authority, roles and responsibilities during emergencies
- Is simple and familiar, and is used routinely at all incidents
- Allows structured communication

D.4 INCIDENT COMMAND SYSTEM (Cont'd)

- Is a structured system for response and assignment of resources
- Provides for expansion, escalation, and transfer/transition of roles and responsibilities
- Allows for "Unified Command" where outside agency involvement at the command level is required

Effective establishment and utilization of the ICS during response to all types of emergencies can:

- Provide for increased safety
- Shorten emergency mitigation time by providing more effective and organized mitigation
- Cause increased confidence and support from local, state, and federal emergency response personnel
- Provide a solid cornerstone for emergency planning efforts

Section D.7 provides a comprehensive list of every response team member's duty assignment.

D.5 UNIFIED COMMAND

As a component of an ICS, the Unified Command (UC) is a structure that brings together the Incident Commanders of all major organizations involved in the incident to coordinate an effective response while still meeting their own responsibilities. The Unified Command (UC) system links the organizations responding to the incident and provides a forum for the Responsible Party and responding agencies to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and responders may blend together throughout the organization to create an integrated response team. The UC process requires the UC to set clear objectives to guide the on-scene response resources.

Multiple jurisdictions may be involved in a response effort utilizing the Unified Command of the Incident Command System. These jurisdictions could be represented by any combination of:

- Geographic boundaries
- Government levels
- Functional responsibilities
- Statutory responsibilities

The participants of the UC for a specific incident will be determined by taking into account the specifics of the incident and existing response plans and/or decisions reached during the initial meeting of the UC. The UC may change as an incident progresses, in order to account for changes in the situation.

D.5 UNIFIED COMMAND (Cont'd)

The UC is responsible for overall management of an incident. The UC directs incident activities and approves appropriation and release of resources. The UC structure is a vehicle for coordination, cooperation and communication which is essential to an effective response.

UC representatives must be able to:

- Agree on common incident objectives and priorities
- Have the capability to sustain a 24-hour-7-day-a-week commitment to the incident
- Have the authority to commit agency or company resources to the incident
- Have the authority to spend agency or company funds
- Agree on an incident response organization
- Agree on the appropriate Command and General Staff assignments
- Commit to speak with “one voice” through the Information Officer or Joint Information Center
- Agree on logistical support procedures
- Agree on cost-sharing procedures

D.6 DISCHARGE CLASSIFICATION

The severity of a discharge will have a bearing on the level of management involvement necessary and the extent of resource mobilization. The following definitions provide guidance in the early classification of discharges:

TIER I EVENT
Incident Command will normally be assumed by Facility Management. Regional and Head Office support will be utilized on an as needed basis.
Exposure
The potential public and environmental exposure is moderate. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderate impact on the public and/or the environment.
Degree of Control
The incident can be controlled in a short period of time through implementation of the local resources available to the Facility (including contract resources).
Governmental Involvement
Government involvement will be moderate and generally restricted to state and local levels.
Media Involvement
Media interest will be moderate and generally restricted to state and local levels.

TIER II EVENT
Local Company resources may have to be supplemented with Head Office and external resources to manage the spill incident.
Exposure
The potential public and environmental exposure is moderately high. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have moderately high impact on the public and/or the environment.
Degree of Control
The incident can be brought under control in a moderate period of time through implementation of local resources available to the Facility (including contract resources) with possible implementation of regional resources.
Governmental Involvement
Government involvement will be moderately high and generally restricted to regional levels.
Media Involvement
Media interest will be moderately high and generally restricted to regional levels.

D.6 DISCHARGE CLASSIFICATION (Cont'd)

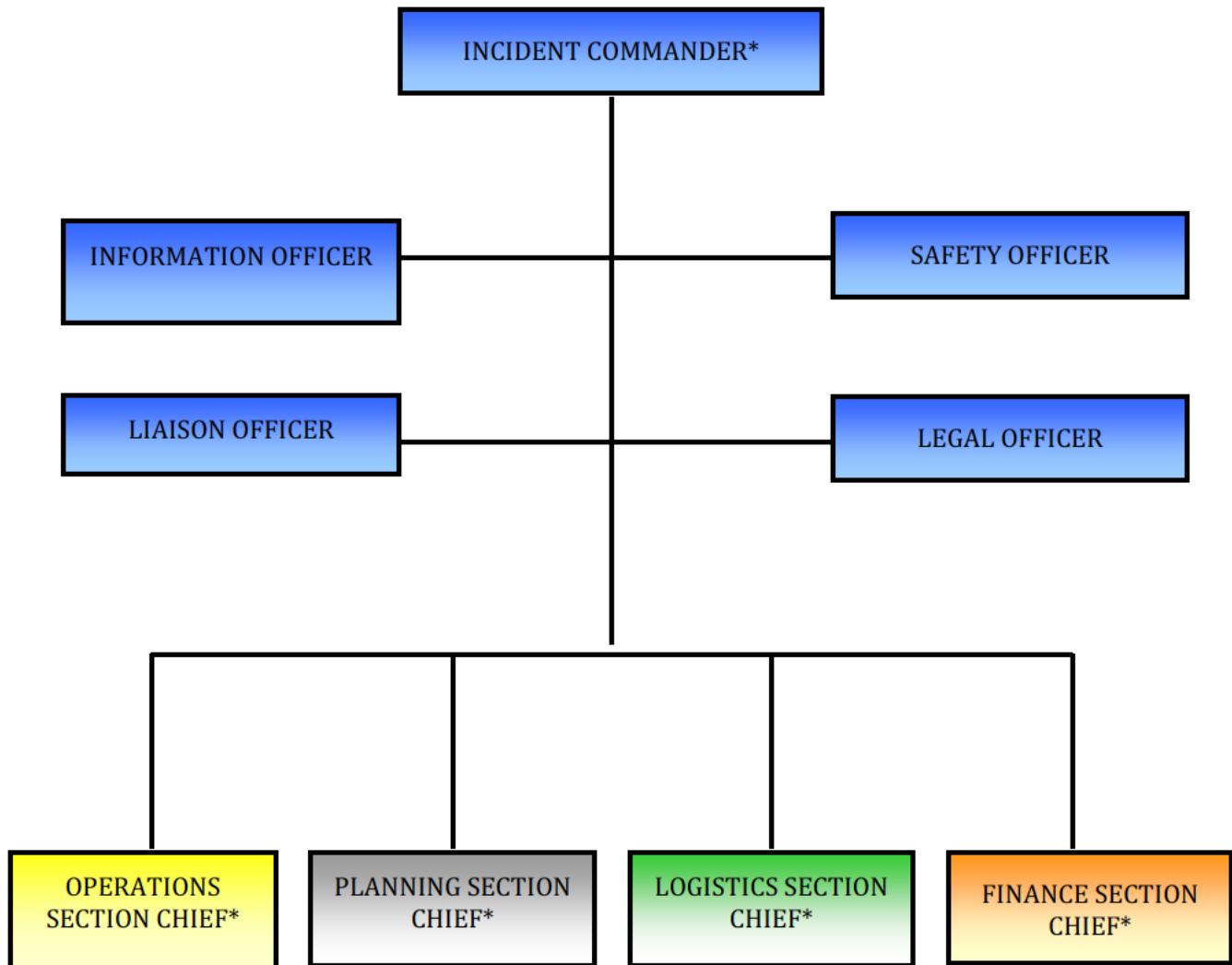
TIER III EVENT
Maximum Company and external resources must be implemented to respond to the spill incident. Activation of the Crisis Management Team would be anticipated during a Tier III incident.
Exposure
The potential public and environmental exposure is significant. The type and quantity of material released, while considering the overall nature of the incident (e.g. fire, proximity to private dwellings, etc.), will have significant impact on the public and/or the environment.
Degree of Control
Maximum Company and third party resources must be implemented in order to gain control of the incident.
Governmental Involvement
Government involvement will be high.
Media Involvement
Media interest will be high.

FIGURE D.1
ICS ORGANIZATION



FIGURE D.2

RESPONSE TEAM ORGANIZATION



* NOTE: Spill Management Team (SMT) personnel can assume any of these positions as necessary.

D.7 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an ICS organization:

- Receive assignment, including:
 - Job assignment
 - Resource order number and request number
 - Reporting location
 - Reporting time
 - Travel instructions
 - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- Acquire work materials.
- Supervisors maintain accountability for assigned personnel.
- Organize and brief subordinates.
- Know your assigned radio frequency(s) and ensure communications equipment is operating properly.
- Use clear text and ICS terminology (no codes) in all communications.
- Complete forms and reports required of the assigned position and send to Documentation Unit.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).
- Respond to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In ICS, a Unit Leader's responsibilities are common to all units in all parts of the organization. Common responsibilities of Unit Leaders are listed below.

- Review common responsibilities.
- Receive briefing from Incident Commander, Section Chief or Branch Director, as appropriate.
- Participate in incident planning meetings, as required.
- Determine current status of unit activities.
- Order additional unit staff, as appropriate.
- Determine resource needs.
- Confirm dispatch and estimated time of arrival of staff and supplies.
- Assign specific duties to staff; supervise staff.
- Develop and implement accountability, safety and security measures for personnel and resources.
- Supervise demobilization of unit, including storage of supplies.
- Provide Supply Unit Leader with a list of supplies to be replenished.
- Maintain unit records, including Unit/Activity Log (ICS Form 214).

INCIDENT COMMANDER

- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
 - Keep the public informed of response activities.
 - Manage a coordinated response effort.
 - Maximize protection of environmentally sensitive areas.
 - Contain and recover spilled material.
 - Recover and rehabilitate injured wildlife.
 - Remove oil from impacted areas.
 - Minimize economic impacts.
 - Keep stakeholders informed of response activities.
- Establish the immediate priorities.
 - Ensure the safety of citizens and response personnel.
 - Control the source of the spill.
- Establish an Incident Command Post (ICP).
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an Incident Action Plan (IAP).
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep Company administrator(s) informed of incident status.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Ensure incident Status Summary (ICS Form 209) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

INFORMATION OFFICER

- Determine from the IC if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain IC approval of media releases.
- Inform media and conduct media briefings.
- Arrange for tours and other interviews or briefings that may be required.
- Obtain media information that may be useful to incident planning.
- Maintain current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

LIAISON OFFICER

- Be a contact point for agency representatives.
- Maintain a list of assisting and cooperating agencies and agency representatives. Monitor check-in sheets daily to ensure that all agency representatives are identified.
- Assist in establishing and coordinating interagency contacts.
- Keep agencies supporting the incident aware of incident status.
- Monitor incident operations to identify current or potential inter-organizational problems.
- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.
- Coordinate response resource needs for Natural Resource Damage Assessment and NRDAR activities with the Operations Section during oil and HAZMAT responses.
- Coordinate response resource needs for incident investigation activities with the Operations Section.
- Ensure that all required agency forms, reports and documents are completed prior to demobilization.
- Have debriefing session with IC prior to departure.
- Coordinate activities of visiting dignitaries.

SAFETY OFFICER

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the IAP for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
- Assign assistants, as needed.
- Review and approve the medical plan.
- Develop the Site Safety Plan and publish Site Safety Plan summary (provided in this Section) as required.

LEGAL OFFICER

- Participate in planning meetings, if requested.
- Advise on legal issues relating to in-situ burning, use of dispersants, and other alternative response technologies.
- Advise on legal issues relating to differences between NRDAR and response activities.
- Advise on legal issues relating to investigations.
- Advise on legal issues relating to finance and claims.
- Advise on legal issues relating to response.

OPERATIONS SECTION CHIEF

- Develop operations portion of IAP.
- Brief and assign Operations Section personnel in accordance with the IAP.
- Attend planning meetings.
- Supervise Operations Section.
- Determine need for and request additional resources.
- Review suggested list of resources to be released and initiate recommendation for release of resources.
- Assemble and disassemble Strike Teams assigned to the Operations Section.
- Report information about special activities, events, and occurrences to the IC.
- Respond to resource requests in support of NRDAR activities.
- Resolve logistic problems reported by subordinates.
- Approve accident and medical reports originating within the Branch.

PLANNING SECTION CHIEF

- Collect and process situation information about the incident.
- Supervise preparation of the IAP.
- Provide input to the IC and the Operations Section in preparing the IAP.
- Chair planning meetings and participate in other meetings as required.
- Reassign out-of-service personnel already on-site to ICS organizational positions as appropriate.
- Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation Units).
- Determine the need for any specialized resources in support of the incident.
- If requested, assemble and disassemble Strike Teams and Task Forces not assigned to Operations.
- Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- Assemble information on alternative strategies.
- Provide periodic predictions on incident potential.
- Report any significant changes in incident status.
- Compile and display incident status information.
- Oversee preparation and implementation of the Incident Demobilization Plan.
- Incorporate plans (e.g., Traffic, Medical, Communications, Site Safety) into the IAP.

LOGISTICS SECTION CHIEF

- Plan the organization of the Logistics Section.
- Assign work locations and preliminary work tasks to Section personnel.
- Notify the Resources Unit of the Logistics Section units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input to and review the Communications Plan, Medical Plan and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive Incident Demobilization Plan from Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of Logistics Section personnel.

FINANCE/ADMINISTRATION SECTION CHIEF

- Attend planning meetings, as required.
- Manage all financial aspects of an incident.
- Provide financial and cost analysis information, as requested.
- Gather pertinent information from briefings with responsible agencies.
- Develop an operating plan for the Finance/Administration Section; fill supply and support needs.
- Determine the need to set up and operate an incident commissary.
- Meet with assisting and cooperating agency representatives, as needed.
- Maintain daily contact with Company administrative headquarters on finance/ administration matters.
- Ensure that all personnel time records are accurately completed and transmitted, according to policy.
- Provide financial input to demobilization planning.
- Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- Brief administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.

APPENDIX E

DISPOSAL PLAN

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OVERVIEW

A major oil spill response would generate significant quantities of waste materials ranging from oily debris and sorbent materials to sanitation water and used batteries. All these wastes need to be classified and separated (i.e., oily, liquid, etc.), transported from the site, and treated and/or disposed of at approved disposal sites. Each of these activities demands that certain health and safety precautions be taken, which are strictly controlled by federal and state laws and regulations. This section provides an overview of the applicable state regulations governing waste disposal, and a discussion of various waste classification, handling, transfer, storage, and disposal techniques. It is the responsibility of the Company's Designated Disposal Specialist to manage waste disposal needs during an oil spill cleanup.

WASTE CLASSIFICATION

Oily - Liquid Wastes

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those handled during routine storage and transfer operations. The largest volume of oily liquid wastes would be produced by recovery operations (e.g., through the use of vacuum devices or skimmers). In addition, oily water and emulsions would be generated by vehicle operations (e.g., spent motor oils, lubricants, etc.), and equipment cleaning operations.

Non-Oily - Liquid Wastes

Response operations would also produce considerable quantities of non-oily liquid wastes. Water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), and office and field operations (i.e., sewage, construction activities).

Oily - Solid/Semi-Solid Wastes

Oily solid/semi-solid wastes that would be generated by containment and recovery operations include damaged or worn-out booms, disposable/soiled equipment, used sorbent materials, saturated soils, contaminated beach sediments, driftwood, and other debris.

Non-Oily - Solid/Semi-Solid Wastes

Non-oily solid/semi-solid wastes would be generated by emergency construction operations (e.g., scrap, wood, pipe, and wiring) and office and field operations (i.e., refuse). Vessel, vehicle, and aircraft operations also produce solid wastes.

WASTE HANDLING

A primary concern in the handling of recovered oil and oily debris is contaminating unaffected areas or recontaminating already cleaned areas. Oily wastes generated during the response operations would need to be separated by type and transferred to temporary storage areas and/or transported to incineration or disposal sites. Proper handling of oil and oily wastes is imperative to ensure personnel health and safety.

WASTE HANDLING (Cont'd)

Safety Considerations

Care should be taken to avoid or minimize direct contact with oily wastes. All personnel handling or coming into contact with oily wastes will wear protective clothing. A barrier cream can be applied prior to putting on gloves to further reduce the possibility of oily waste absorption. Safety goggles are to be worn by personnel involved in waste handling activities where splashing might occur. Any portion of the skin exposed to oily waste should be washed with soap and water as soon as possible. Decontamination zones will be set up during response operations to ensure personnel are treated for oil exposure.

Waste Transfer

During response operations, it may be necessary to transfer recovered oil and oily debris from one point to another several times before the oil and oily debris are ultimately recycled, incinerated or disposed of at an appropriate disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

- From portable or vessel-mounted skimmers into flexible bladder tanks, storage tanks of the skimming vessel itself, or a barge.
- Directly into the storage tank of a vacuum device.
- From a skimming vessel or flexible bladder to a barge.
- From a vacuum device storage tank to a barge.
- From a barge to a tank truck.
- From a tank truck to a processing system (e.g., oil/water separator).
- From a processing system to a recovery system and/or incinerator.
- Directly into impermeable bags that, in turn, are placed in impermeable containers.
- From containers to trucks.

There are four general classes of transfer systems that may be employed to affect oily waste transfer operations:

- **Pumps:** Rotary pumps, such as centrifugal pumps, may be used when transferring large volumes of oil, but they may not be appropriate for pumping mixtures of oil and water. The extreme shearing action of centrifugal pumps tends to emulsify oil and water, thereby increasing the viscosity of the mixture and causing low, inefficient transfer rates.

The resultant emulsion would also be more difficult to separate into oil and water fractions. Lobe or "positive displacement" pumps work well on heavy, viscous oils, and do not emulsify the oil/water mixture. Double-acting piston and double acting diaphragm pumps are reciprocating pumps that may also be used to pump oily wastes.

- **Vacuum Systems:** A vacuum truck may be used to transfer viscous oils but they usually pick up a very high water/oil ratio.
- **Belt/Screw Conveyors:** Conveyors may be used to transfer oily wastes containing a large amount of debris. These systems can transfer weathered debris laden oil either horizontally or vertically for short distances (i.e., 10 feet) but are bulky and difficult to set up and operate.

WASTE HANDLING (Cont'd)

Waste Transfer (Cont'd)

- **Wheeled Vehicles:** Wheeled vehicles may be used to transfer liquid wastes or oily debris to storage or disposal sites. These vehicles have a limited transfer volume (i.e., 100 barrels) and require good site access.

Table E-1 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

WASTE STORAGE

Interim storage of recovered oil, oily and non-oily waste should be considered to be an available means of holding the wastes until a final management method is selected. In addition, the segregation of wastes according to type would facilitate the appropriate method of disposal. The storage method used would depend upon:

- The type and volume of material to be stored.
- The duration of storage.
- Access.

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively depends upon the available storage capacity. Typical short-term storage options are summarized in Table E-2. The majority of these options can be used either onshore or offshore. If storage containers such as bags or drums are used, the container must be clearly marked and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal option. Bladder or pillow tanks are acceptable, if the available space can support the weight of both the container and the product.

Fuel barges may be the best option for temporary storage of oil recovered in open waters. Depending on size, these vessels may be able to hold up to 6,000 barrels of oil and water. The barge deck can be used as a platform for operating oil spill clean-up equipment and storing containment booms.

Empty barges have drafts of between four and six feet which would increase when these barges are filled with oil or loaded with cargo. Consequently, they may not be able to enter shallow, nearshore waters.

It may be difficult to offload recovered oil stored inside barges. Due to natural forces which affect spilled oil, recovered oil may be very viscous or emulsified, rather than free-flowing. It may be necessary to use steam to heat viscous oil before pumping it from the barge.

Steel or rubber tanks can be used to store oil recovered near the shoreline. To facilitate offloading, demulsifiers may be used to break emulsions prior to placing the recovered substance into the barges or storage tanks.

Use of any site for storage is dependent on the approval of the local authorities. The following elements affect the choice of a potential storage site:

- Geology.
- Ground water.
- Soil type.
- Flooding.

WASTE STORAGE (Cont'd)

- Surface water.
- Slope.
- Type of material.
- Capacity of site.
- Climatic factors.
- Land use.
- Toxic air emissions.
- Security of site.
- Access to site.
- Public accessibility.

Temporary storage sites should use the best achievable technology to protect the environment and human health. They should be set up to prevent leakage, contact, and subsequent absorption of oil by the soil. The sites should be bermed (1 to 1.5 meters high) and double lined with plastic or visqueen sheets 6-10 millimeters or greater in thickness, without joints, prior to receiving loose and bagged debris. The edges of the sheet should be weighted with stones or earth to prevent damage by wind, and the sheet should be placed on a sand layer or an underfelt thick enough to prevent piercing. A reinforced access area for vehicles at the edge of the site should be provided. In addition, the oily debris should be covered by secured visqueen or tarps and an adequate stormwater runoff collection system for the size and location of the site would be utilized. Additionally, the sites should be at least 3 meters above mean sea level.

Oily debris can be hauled to approved temporary storage sites in visqueen lined trucks or other vehicles. Burnable, non-burnable, treatable and re-usable materials can be placed in well defined separate areas at temporary storage sites.

When the last of the oily debris leaves a temporary storage site, the ground protection should be removed and disposed of with the rest of the oily debris. Any surrounding soil which has become contaminated with oil should also be removed for disposal or treatment. If the soils were removed for treatment, they may be replaced if testing proves acceptable levels have been achieved. Treatment and remediation is encouraged when feasible. The temporary storage should be returned to its original condition.

WASTE DISPOSAL

Techniques for Disposal of Recovered Oil

Recovery, reuse, and recycling are the best choices for remediation of a spill, thereby reducing the amount of oily debris to be bermed onsite or disposed of at a solid waste landfill. Treatment is the next best alternative, but incineration and burning for energy recovery have more options within the state. There are some limitations and considerations in incinerating for disposal. Environmental quality of incineration varies with the type and age of the pipeline. Therefore, when incineration becomes an option during an event, local air quality authorities would be contacted for advice about efficiency and emissions of facilities within their authority. Approval of the local air authorities is a requirement for any incineration option. Landfilling is the last option. Final disposal at a solid or dangerous waste landfill is the least environmentally sound method of dealing with a waste problem such as oily debris.

WASTE DISPOSAL (Cont'd)

During an oil spill incident, the Company representative will consult with the federal and state On Scene Coordinators (OSCs) to identify the acceptable disposal methods and sites appropriately authorized to receive such wastes. The Company maintains a list of approved disposal sites that satisfy local, state, and federal regulations and company requirements. This identification of suitable waste treatment and disposal sites will be prepared by a Designated Disposal Specialist of the Company's Response Team in the form of an Incident Disposal Plan which must then be authorized by the U.S. Coast Guard and/or the EPA. An Incident Disposal Plan should include predesignated interim storage sites, segregation strategies, methods of treatment and disposal for various types of debris, and the locations/contacts of all treatment and disposal site selections. Onsite treatment/disposal is preferred.

In order to obtain the best overall Incident Disposal Plan, a combination of methods should be used. There is no template or combination of methods that can be used in every spill situation. Each incident should be reviewed carefully to ensure an appropriate combination of disposal methods are employed.

The different types of wastes generated during response operations will require different disposal methods. To facilitate the disposal of wastes, they should be separated by type for temporary storage, transport and disposal. Table E-3 lists some of the options that are available to segregate oily wastes. The table also depicts methods that can be employed to separate free and/or emulsified water from the oily liquid waste.

The following is a brief discussion of some disposal techniques available for recovered oil and oily debris.

Recycling

This technique entails removing water from the oil and blending the oil with uncontaminated oil. Recovered oil can be shipped to refineries provided that it is exempt from hazardous waste regulations. There it can be treated to remove water and debris, and then blended and sold as a commercial product.

The Company's Designated Disposal Specialist is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site.

Incineration

This technique entails the complete destruction of the recovered oil by high temperature incineration. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority. Factors to consider when selecting an appropriate site for onsite incineration include:

- Proximity to recovery locations.
- Access to recovery locations.
- Adequate fire control.
- Approval of the local air pollution control authorities.

WASTE DISPOSAL (Cont'd)

In Situ Burning/Open Burning

Burning techniques entail igniting oil or oiled debris and allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by federal, state and local laws. They cannot be used to burn PCBs, waste oil containing more than 1,000 parts per million of halogenated solvents, or other substances regulated by the EPA. Permission for *in situ* burning may be difficult to obtain when the burn takes place near populated areas.

As a general rule, *in situ* burning is appropriate only when atmospheric conditions will allow the smoke to rise several hundred feet and rapidly dissipate. Smoke from burning oil will normally rise until its temperature drops to equal the ambient temperature. Afterwards, it will travel in a horizontal direction under the influence of prevailing winds.

Landfill Disposal

This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by federal law in the United States.

With local health department approval, non-burnable debris which consists of oiled plastics, gravel and oiled seaweed, kelp, and other organic material may be transported to a licensed, lined, approved municipal or private landfill and disposed of in accordance with the landfill guidelines and regulations. Landfill designation should be planned only for those wastes that have been found to be unacceptable by each of the other disposal options (e.g., waste reduction, recycling, energy recovery). Wastes are to be disposed of only at Company-approved disposal facilities. The Company's Designated Disposal Specialist is responsible for ensuring that all waste materials are disposed of at a Company internally approved disposal site. Disposal at a non-approved facility would require approval by the Company's Designated Disposal Specialist prior to sending any waste to such a facility.

TABLE E-1
COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEMS	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESHING SCREW	VALVE PUMP	FLEXIBLE IMPELLER	SCREW/AUGER PUMP	PROGRESSING CAVITY	PISTON PUMP	DIAPHRAGM PUMP	AIR CONVEYOR	VACUUM TRUCK	PORTABLE VACUUM PUMP	CONVEYOR BELT	SCREW CONVEYOR	WHEELED VEHICLES
High Viscosity Fluids	1	5	5	5	3	2	5	5	5	3	5	4	4	5	4	5
Low Viscosity Fluids	5	2	2	2	3	4	1	3	3	4	5	5	5	1	1	5
Transfer Rate	5	2	1	1	3	4	1	2	2	3	4	5	3	2	2	2
Debris Tolerance																
° Silt/Sand	5	3	1	1	1	4	5	5	3	4	5	5	5	5	5	5
° Gravel/Particulate	5	2	1	1	1	2	5	3	2	3	5	5	4	5	4	5
° Seaweed/Stringy Matter	2	3	4	3	2	2	4	4	3	3	4	4	3	5	4	5
Tendency to Emulsify Fluids	1	4	3	3	3	3	5	5	2	5	5	5	5	5	5	5
Ability to Run Dry	5	3	2	1	2	3	4	3	3	2	5	5	5	4	3	
Ability to Operate Continuously	5	3	2	2	2	3	3	3	4	4	3	3	3	3	2	4
Self Priming	1	3	2	2	2	5	1	5	4	4	5	5	5	5	5	
Suction/Head	2	3	2	2	3	4	1	5	5	2	5	4	3			
Back Pressure/Head	1	5	5	5	4	3	4	5	2	4	1	1	1	3	3	
Portability	5	3	3	2	4	4	3	2					2	1	1	
Ease of Repair	5	3	2	2	3	4	3	2	3	5	1	1	2	3	2	3
Cost	5	B	2	2	3	3	1	2	3	5	1	1	2	2	2	3
Comments	E,J	B	B	B,J		F	A	B	B,D	A,C,D	F,G,I	F,G,I	F,G			G,H,I

KEY TO RATINGS:

KEY TO COMMENTS:

5 = Best; 1 = Worst

- A. Normally require remote power sources, thus are safe around flammable fluids.
- B. Should have a relief valve in the outlet line to prevent bursting hoses.
- C. Air powered units tend to freeze up in sub-freezing temperatures.
- D. Units with work ball valves are difficult to prime.
- E. Some remotely powered types are designed to fit in a tanker's butterworth hatch.
- F. Can also pump air at low pressure.
- G. Transfer is batch-wise rather than continuous.
- H. Waste must be in separate container for efficient transfer.
- I. Transportable with its own prime mover.
- J. High shear action tends to emulsify oil and water mixtures.

TABLE E-2
TEMPORARY STORAGE METHODS

CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	x	x	x	x	May require handling devices. Covered and clearly marked.
Tank Trucks	x	x		x	Consider road access. Barge-mounted offshore.
Dump/Flat Bed Trucks	x		x		May require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		x	x	x	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	x	x		x	Consider problems of large volumes of water in oil.
Bladders	x	x		x	May require special hoses or pumps for oil transfer.

TABLE E-3
OILY WASTE SEPARATION AND DISPOSAL METHODS

TYPE OF MATERIAL	SEPARATION METHODS	DISPOSAL METHODS
LIQUIDS		
Non-emulsified oils	Gravity separation of free water	Incineration Use of recovered oil as refinery/production facility feedstock
Emulsified oils	Emulsion broken to release water by: • heat treatment • emulsion breaking • chemicals • mixing with sand • centrifuge • filter/belt press	Use of recovered oil as refinery/production facility feedstock
SOLIDS		
Oil mixed with sand	Collection of liquid oil leaching from sand during temporary storage Extraction of oil from sand by washing with water or solvent Removal of solid oils by sieving	Incineration Use of recovered oil as refinery/production facility feedstock Direct disposal Stabilization with inorganic material Degradation through land farming or composting
Oil mixed with cobbles or pebbles	Screening Collection of liquid oil leaching from materials during temporary storage Extraction of oil from materials by washing with water or solvent	Incineration Direct Disposal Use of recovered oil as refinery/production facility feedstock
Oil mixed with wood, seaweed and sorbents	Screening Collection of liquid oil leaching from debris during temporary storage Flushing of oil from debris with water	Incineration Direct disposal Degradation through land farming or composting for oil mixed with seaweed or natural sorbents
Tar balls	Separation from sand by sieving	Incineration Direct disposal

APPENDIX F

MISCELLANEOUS FORMS

Page

Notification Data Sheet.....	F-2
Form PHMSA F 7000-1.....	F-3

Forms and Exercise Documentation File Maintenance Procedures

- Forms and exercise documentation records should be maintained in a separate file in the Pipeline owner/operator office filing system.
 - These files must be available for presentation upon request by regulatory agency personnel.

Appendix F

Miscellaneous Forms

NOTIFICATION DATA SHEET

Date of Incident: _____ Time of Incident: _____

INCIDENT DESCRIPTION

Reporter's Full Name: _____ Position: _____

Day Phone Number: _____ Evening Phone Number: _____

Company: OXY USA Inc. - LA Basin. Organization Type: _____Sansinena PipelineFacility Address: 153 Canada Sombre Owner's Address: OXY USA Inc. - La Basin.La Habra Heights, CA 90631 Sansinena Pipeline301 E. Ocean Blvd., Suite 300Long Beach, CA 90802

Facility Latitude: _____ Facility Longitude: _____

Incident Address/Location: _____

(if not at Facility): _____

On-Scene Weather Conditions: _____

Responsible Party's Name: _____ Phone Number: _____

Responsible Party's Address: _____

Source and/or cause of incident: _____

Nearest City: La Habra HeightsCounty/Parish: Los Angeles State: California Zip code: 90631

Section: _____ Township: _____ Range: _____ Borough: _____

Distance from City: _____ Unit of Measure: _____ Direction from City: _____

Container Type: _____ Container Storage Capacity: _____ Unit of Measure: _____

Facility Oil Storage Capacity: _____ Unit of Measure: _____

Were Materials Discharged? _____ (Y/N) Confidential? _____ (Y/N)

CHRIS Code	Total Quantity Released	Unit of Measure	Water Impact (YES or NO)	Quantity into Water	Unit of Measure

RESPONSE ACTION(S)

Action(s) taken to Correct, Control, or Mitigate Incident: _____

Number of Injuries: _____ Number of Deaths: _____

Evacuation(s): _____ (Y/N) Number Evacuated: _____

Was there any damage? _____ (Y/N) Medium Affected: _____

Description: _____

More Information about Medium: _____

CALLER NOTIFICATIONSNational Response Center (NRC): 1-800-424-8802Additional Notifications (Circle all applicable): USCG EPA State Other

Describe: _____

NRC Incident Assigned No: _____

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in this report: _____

Meeting Federal Obligations to Report? _____ (Y/N) Date Called: _____

Calling for Responsible Party? _____ (Y/N) Time Called: _____

NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION.

FORM PHMSA F 7000-1



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

Report Date _____

No. _____

(DOT Use Only)

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0047. Public reporting for this collection of information is estimated to be approximately 10 hours per response (5 hours for a small release), including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

Important: Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at <http://www.phmsa.dot.gov/pipeline/library/forms>. Note: Certain low consequence accidents only require the information indicated in the shaded fields.

*Report Type: (select all that apply) ☐ Original ☐ Supplemental ☐ Final

*3.d Zip Code: / / / / / / - / / / / /

Longitude: - / / / / . / / / / /

Hour Month Day Year

☐ Other ➞ Name:

*11. Estimated volume of commodity recovered: / / / , / / / . / / / Barrels

*12. Were there fatalities? ☐ Yes ☐ No If Yes, specify the number in each category: <table style="width: 100%;"> <tr> <td style="width: 70%;">*12.a Operator employees</td> <td style="width: 30%; text-align: center;">/ / / / /</td> </tr> <tr> <td>*12.b Contractor employees working for the Operator</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>*12.c Non-Operator emergency responders</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>*12.d Workers working on the right-of-way, but NOT associated with this Operator</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>*12.e General public</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>12.f Total fatalities (sum of above)</td> <td style="text-align: center;">/ / / / /</td> </tr> </table>	*12.a Operator employees	/ / / / /	*12.b Contractor employees working for the Operator	/ / / / /	*12.c Non-Operator emergency responders	/ / / / /	*12.d Workers working on the right-of-way, but NOT associated with this Operator	/ / / / /	*12.e General public	/ / / / /	12.f Total fatalities (sum of above)	/ / / / /	*13. Were there injuries requiring inpatient hospitalization? ☐ Yes ☐ No If Yes, specify the number in each category: <table style="width: 100%;"> <tr> <td style="width: 70%;">*13.a Operator employees</td> <td style="width: 30%; text-align: center;">/ / / / /</td> </tr> <tr> <td>*13.b Contractor employees working for the Operator</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>*13.c Non-Operator emergency responders</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>*13.d Workers working on the right-of-way, but NOT associated with this Operator</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>*13.e General public</td> <td style="text-align: center;">/ / / / /</td> </tr> <tr> <td>13.f Total injuries (sum of above)</td> <td style="text-align: center;">/ / / / /</td> </tr> </table>	*13.a Operator employees	/ / / / /	*13.b Contractor employees working for the Operator	/ / / / /	*13.c Non-Operator emergency responders	/ / / / /	*13.d Workers working on the right-of-way, but NOT associated with this Operator	/ / / / /	*13.e General public	/ / / / /	13.f Total injuries (sum of above)	/ / / / /
*12.a Operator employees	/ / / / /																								
*12.b Contractor employees working for the Operator	/ / / / /																								
*12.c Non-Operator emergency responders	/ / / / /																								
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*13.a Operator employees	/ / / / /																								
*13.b Contractor employees working for the Operator	/ / / / /																								
*13.c Non-Operator emergency responders	/ / / / /																								
*13.d Workers working on the right-of-way, but NOT associated with this Operator	/ / / / /																								
*13.e General public	/ / / / /																								
13.f Total injuries (sum of above)	/ / / / /																								

14. Was the pipeline/facility shut down due to the Accident?
☐ Yes ☐ No ➡ Explain: _____

If Yes, complete Questions 14.a and 14.b: *(use local time, 24-hr clock)*

14.a Local time and date of shutdown	/ / / / /	/ / /	/ / /	/ / /	
	Hour	Month	Day	Year	
14.b Local time pipeline/facility restarted	/ / / / /	/ / /	/ / /	/ / /	
	Hour	Month	Day	Year	

☐ Still shut down*
*(*Supplemental Report required)*

***15. Did the commodity ignite?** ☐ Yes ☐ No

***16. Did the commodity explode?** ☐ Yes ☐ No

17. Number of general public evacuated: / / / / /

18. Time sequence: *(use local time, 24-hour clock)*

18.a Local time Operator identified Accident	/ / / / /	/ / /	/ / /	/ / /
	Hour	Month	Day	Year
18.b Local time Operator resources arrived on site	/ / / / /	/ / /	/ / /	/ / /
	Hour	Month	Day	Year

☐ Interstate

☐ Intrastate

☐ Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances ➡ ☐ Atmospheric or Low Pressure
☐ Pressurized

- ☐ Onshore Terminal/Tank Farm Equipment and Piping
- ☐ Onshore Equipment and Piping Associated with Belowground Storage
- ☐ Onshore Pump/Meter Station Equipment and Piping
- ☐ Onshore Pipeline, Including Valve Sites
- ☐ Offshore Platform/Deepwater Port, Including Platform-mounted Equipment and Piping
- ☐ Offshore Pipeline, Including Riser and Riser Bend

☐ Pipe ➡ Specify: ☐ Pipe Body ☐ Pipe Seam

3.d Pipe specification:

3.e Pipe Seam ⇨ Specify: ☐ Longitudinal ERW - High Frequency ☐ Single SAW ☐ Flash Welded
☐ Longitudinal ERW - Low Frequency ☐ DSAW ☐ Continuous Welded
☐ Longitudinal ERW – Unknown Frequency ☐ Furnace Butt Welded
☐ Spiral Welded ERW ☐ Spiral Welded SAW ☐ Spiral Welded DSAW
☐ Lap Welded ☐ Seamless ☐ Other

3.g Year of manufacture: / / / / /

3.h Pipeline coating type at point of Accident

⇒ Specify: ☐ Fusion Bonded Epoxy ☐ Coal Tar ☐ Asphalt ☐ Polyolefin
☐ Extruded Polyethylene ☐ Field Applied Epoxy ☐ Cold Applied Tape ☐ Paint
☐ Composite ☐ None ☐ Other

☐ Weld, including heat-affected zone ➡ Specify: ☐ Pipe Girth Weld ☐ Other Butt Weld ☐ Fillet Weld ☐ Other

If Pipe Girth Weld is selected, complete items 3.a. through h. above. If the values differ on either side of the girth weld, enter one value in 3.a. through h. and list the different value(s) in Part H - Narrative Description of the Accident.

[illegible]

3.i Mainline valve manufacturer:

3.j Year of manufacture: / / / / /

☐ Relief Valve

☐ Auxiliary or Other Valve

- ☐ Pump
- ☐ Meter/Prover
- ☐ Scraper/Pig Trap
- ☐ Sump/Separator
- ☐ Repair Sleeve or Clamp
- ☐ Hot Tap Equipment
- ☐ Stopple Fitting
- ☐ Flange
- ☐ Relief Line
- ☐ Auxiliary Piping (e.g. drain lines)
- ☐ Tubing
- ☐ Instrumentation

☐ Tank/Vessel ➞ Specify: ☐ Single Bottom System ☐ Double Bottom System ☐ Tank Shell ☐ Chime
☐ Roof/Roof Seal ☐ Roof Drain System ☐ Mixer ☐ Pressure Vessel Head or Wall
☐ Appurtenance ☐ Other

☐ Other

4. Year item involved in Accident was installed: / / / / /

*5. Material involved in Accident: *(select only one)*

☐ Carbon Steel

☐ Material other than Carbon Steel ➡ Specify: _____

*6. Type of Accident involved: *(select only one)*

☐ Mechanical Puncture ➡ Approx. size: / / / / / in. (axial) by / / / / / in. (circumferential)

☐ Leak ➡ Select Type: ☐ Pinhole ☐ Crack ☐ Connection Failure ☐ Seal or Packing ☐ Other

☐ Rupture ➡ Select Orientation: ☐ Circumferential ☐ Longitudinal ☐ Other _____
Approx. size: / / / / / in. (widest opening) by / / / / / in. (length circumferentially or axially)

☐ Overfill or Overflow

☐ Other ➡ Describe: _____

PART D – ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact: ☐ Yes ☐ No

1.a If Yes, specify all that apply:

☐ Fish/aquatic

☐ Birds

☐ Terrestrial

*2. Soil contamination: ☐ Yes ☐ No

3. Long term impact assessment performed or planned: ☐ Yes ☐ No

4. Anticipated remediation: ☐ Yes ☐ No (not needed)

4.a If Yes, specify all that apply:

☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

*5. Water contamination: ☐ Yes ➡ *(Complete 5.a – 5.c below)* ☐ No

*5.a Specify all that apply:

☐ Ocean/Seawater

☐ Surface

☐ Groundwater

☐ Drinking water ➡ *(Select one or both)* ☐ Private Well ☐ Public Water Intake

*5.b Estimated amount released in or reaching water: / / / / / / / / / / Barrels

*5.c Name of body of water, if commonly known: _____

*6. At the location of this Accident, had the pipeline segment or facility been identified as one that “could affect” a High Consequence Area (HCA) as determined in the Operator’s Integrity Management Program? ☐ Yes ☐ No

*7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)? ☐ Yes ☐ No

7.a If Yes, specify HCA type(s): *(select all that apply)*

☐ Commercially Navigable Waterway

Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program?

☐ Yes ☐ No

☐ High Population Area

Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program?

☐ Yes ☐ No

☐ Other Populated Area

Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program?

☐ Yes ☐ No

☐ Unusually Sensitive Area (USA) – Drinking Water

Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program?

☐ Yes ☐ No

☐ Unusually Sensitive Area (USA) – Ecological

Was this HCA identified in the “could affect” determination for this Accident site in the Operator’s Integrity Management Program?

☐ Yes ☐ No

***8. Estimated Property Damage:**

8.a Estimated cost of public and non-Operator private property damage

\$ / / / / / / / / / /

8.b Estimated cost of commodity lost

\$ / / / / / / / / / /

8.c Estimated cost of Operator's property damage & repairs

\$ / / / / / / / / / /

8.d Estimated cost of Operator's emergency response

\$ / / / / / / / / / /

8.e Estimated cost of Operator's environmental remediation

\$ / / / / / / / / / /

8.f Estimated other costs

\$ / / / / / / / / / /

Describe

8.g Total estimated property damage (sum of above)

\$ / / / / / / / / / /

PART E – ADDITIONAL OPERATING INFORMATION

*1. Estimated pressure at the point and time of the Accident (psig):

/ / / / / / / /

*2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):

/ / / / / / / /

*3. Describe the pressure on the system or facility relating to the Accident: *(select only one)*

- ☐ Pressure did not exceed MOP
- ☐ Pressure exceeded MOP, but did not exceed 110% of MOP
- ☐ Pressure exceeded 110% of MOP

*4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?

- ☐ No
- ☐ Yes ➡ *(Complete 4.a and 4.b below)*

*4.a Did the pressure exceed this established pressure restriction?

☐ Yes ☐ No

*4.b Was this pressure restriction mandated by PHMSA or the State?

☐ PHMSA ☐ State ☐ Not mandated

*5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?

- ☐ No
- ☐ Yes ➡ *(Complete 5.a – 5.e below)*

5.a Type of upstream valve used to initially isolate release source:

☐ Manual ☐ Automatic ☐ Remotely Controlled

5.b Type of downstream valve used to initially isolate release source:

☐ Manual ☐ Automatic ☐ Remotely Controlled
☐ Check Valve

5.c Length of segment initially isolated between valves (ft):

/ / / / / / / /

5.d Is the pipeline configured to accommodate internal inspection tools?

- ☐ Yes
- ☐ No ➡ Which physical features limit tool accommodation? *(select all that apply)*

- ☐ Changes in line pipe diameter
- ☐ Presence of unsuitable mainline valves
- ☐ Tight or mitered pipe bends
- ☐ Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)
- ☐ Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)
- ☐ Other ➡ Describe: _____

5.e For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?

- ☐ No
- ☐ Yes ➡ Which operational factors complicate execution? *(select all that apply)*

- ☐ Excessive debris or scale, wax, or other wall build-up
- ☐ Low operating pressure(s)
- ☐ Low flow or absence of flow
- ☐ Incompatible commodity
- ☐ Other ➡ Describe: _____

*5.f Function of pipeline system: *(select only one)*☐ > 20% SMYS Regulated Trunkline/Transmission☐ > 20% SMYS Regulated Gathering☐ ≤ 20% SMYS Regulated Trunkline/Transmission☐ ≤ 20% SMYS Regulated Gathering

*6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Accident?

☐ No

☐ Yes ➡

6.a Was it operating at the time of the Accident? ☐ Yes ☐ No

6.b Was it fully functional at the time of the Accident? ☐ Yes ☐ No

6.c Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident? ☐ Yes ☐ No

6.d Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident? ☐ Yes ☐ No

*7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?

☐ No

☐ Yes ➡

7.a Was it operating at the time of the Accident? ☐ Yes ☐ No

7.b Was it fully functional at the time of the Accident? ☐ Yes ☐ No

7.c Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident? ☐ Yes ☐ No

7.d Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident? ☐ Yes ☐ No

*8. How was the Accident initially identified for the Operator? *(select only one)*

☐ CPM leak detection system or SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations)

☐ Static Shut-in Test or Other Pressure or Leak Test

☐ Controller

☐ Air Patrol

☐ Notification from Public

☐ Notification from Third Party that caused the Accident

☐ Local Operating Personnel, including contractors

☐ Ground Patrol by Operator or its contractor

☐ Notification from Emergency Responder

☐ Other _____

*8.a If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 8, specify the following: *(select only one)*

☐ Operator employee

☐ Contractor working for the Operator

*9. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Accident? *(select only one)*

☐ Yes, but the investigation of the control room and/or controller actions has not yet been completed by the Operator *(Supplemental Report required)*

☐ No, the facility was not monitored by a controller(s) at the time of the Accident

☐ No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: *(provide an explanation for why the Operator did not investigate)*

☐ Yes, specify investigation result(s): *(select all that apply)*

☐ Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue

☐ Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue *(provide an explanation for why not)*

☐ Investigation identified no control room issues

☐ Investigation identified no controller issues

☐ Investigation identified incorrect controller action or controller error

☐ Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response

☐ Investigation identified incorrect procedures

☐ Investigation identified incorrect control room equipment operation

☐ Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response

☐ Investigation identified areas other than those above ➡ Describe: _____

PART F – DRUG & ALCOHOL TESTING INFORMATION	
*1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations? ☐ No ☐ Yes ➡ *1.a Specify how many were tested: <u> / / / </u> *1.b Specify how many failed: <u> / / / </u> *2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations? ☐ No ☐ Yes ➡ *2.a Specify how many were tested: <u> / / / </u> *2.b Specify how many failed: <u> / / / </u>	

PART G – APPARENT CAUSE	<i>Select only one box from PART G in the shaded column on the left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing, or root causes of the Accident in the narrative (PART H).</i>
G1 - Corrosion Failure – *only one sub-cause can be picked from shaded left-hand column	
☐ External Corrosion	*1. Results of visual examination: ☐ Localized Pitting ☐ General Corrosion ☐ Other _____ *2. Type of corrosion: <i>(select all that apply)</i> ☐ Galvanic ☐ Atmospheric ☐ Stray Current ☐ Microbiological ☐ Selective Seam ☐ Other _____ *3. The type(s) of corrosion selected in Question 2 is based on the following: <i>(select all that apply)</i> ☐ Field examination ☐ Determined by metallurgical analysis ☐ Other _____ *4. Was the failed item buried under the ground? ☐ Yes ➡ *4.a Was failed item considered to be under cathodic protection at the time of the Accident? ☐ Yes ➡ Year protection started: <u> / / / / / </u> ☐ No *4.b Was shielding, tenting, or disbonding of coating evident at the point of the Accident? ☐ Yes ☐ No *4.c Has one or more Cathodic Protection Survey been conducted at the point of the Accident? ☐ Yes, CP Annual Survey ➡ Most recent year conducted: <u> / / / / / </u> ☐ Yes, Close Interval Survey ➡ Most recent year conducted: <u> / / / / / </u> ☐ Yes, Other CP Survey ➡ Most recent year conducted: <u> / / / / / </u> ☐ No ☐ No ➡ 4.d Was the failed item externally coated or painted? ☐ Yes ☐ No *5. Was there observable damage to the coating or paint in the vicinity of the corrosion? ☐ Yes ☐ No

☐ Internal Corrosion

*6. Results of visual examination:

- ☐ Localized Pitting ☐ General Corrosion ☐ Not cut open
☐ Other _____

*7. Cause of corrosion: (select all that apply)

- ☐ Corrosive Commodity ☐ Water drop-out/Acid ☐ Microbiological ☐ Erosion
☐ Other _____

*8. The cause(s) of corrosion selected in Question 7 is based on the following: (select all that apply)

- ☐ Field examination ☐ Determined by metallurgical analysis
☐ Other _____

*9. Location of corrosion: (select all that apply)

- ☐ Low point in pipe ☐ E bow ☐ Other _____

*10. Was the commodity treated with corrosion inhibitors or biocides? ☐ Yes ☐ No11. Was the interior coated or lined with protective coating? ☐ Yes ☐ No

12. Were cleaning/dewatering pigs (or other operations) routinely utilized?

- ☐ Not applicable - Not mainline pipe ☐ Yes ☐ No

13. Were corrosion coupons routinely utilized?

- ☐ Not applicable - Not mainline pipe ☐ Yes ☐ No

Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Tank/Vessel.

14. List the year of the most recent inspections:

14.a API Std 653 Out-of-Service Inspection

/ / / / /

☐ No Out-of-Service Inspection completed

14.b API Std 653 In-Service Inspection

/ / / / /

☐ No In-Service Inspection completed

Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.

15. Has one or more internal inspection tool collected data at the point of the Accident?

- ☐ Yes ☐ No

15.a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:

- ☐ Magnetic Flux Leakage Tool / / / / /
☐ Ultrasonic / / / / /
☐ Geometry / / / / /
☐ Caliper / / / / /
☐ Crack / / / / /
☐ Hard Spot / / / / /
☐ Combination Tool / / / / /
☐ Transverse Field/Triaxial / / / / /
☐ Other _____ / / / / /

16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?

- ☐ Yes ➞ Most recent year tested: / / / / / Test pressure (psig): / / / / /
☐ No

17. Has one or more Direct Assessment been conducted on this segment?

- ☐ Yes, and an investigative dig was conducted at the point of the Accident ➞ Most recent year conducted: / / / / /
☐ Yes, but the point of the Accident was not identified as a dig site ➞ Most recent year conducted: / / / / /
☐ No

18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?

- ☐ Yes ☐ No

18.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:

- ☐ Radiography / / / / /
☐ Guided Wave Ultrasonic / / / / /
☐ Handheld Ultrasonic Tool / / / / /
☐ Wet Magnetic Particle Test / / / / /
☐ Dry Magnetic Particle Test / / / / /
☐ Other _____ / / / / /

G2 - Natural Force Damage - *only one **sub-cause** can be picked from shaded left-hand column

☐ Earth Movement, NOT due to Heavy Rains/Floods	1. Specify: ☐ Earthquake ☐ Subsidence ☐ Landslide ☐ Other _____
☐ Heavy Rains/Floods	2. Specify: ☐ Washout/Scouring ☐ Flotation ☐ Mudslide ☐ Other _____
☐ Lightning	3. Specify: ☐ Direct hit ☐ Secondary impact such as resulting nearby fires
☐ Temperature	4. Specify: ☐ Thermal Stress ☐ Frost Heave ☐ Frozen Components ☐ Other _____
☐ High Winds	
☐ Other Natural Force Damage	*5. Describe: _____

Complete the following if any Natural Force Damage sub-cause is selected.

*6. Were the natural forces causing the Accident generated in conjunction with an extreme weather event? ☐ Yes ☐ No

*6.a If Yes, specify: (select all that apply) ☐ Hurricane ☐ Tropical Storm ☐ Tornado
☐ Other _____

G3 – Excavation Damage - *only one **sub-cause** can be picked from shaded left-hand column

☐ Excavation Damage by Operator (First Party)																			
☐ Excavation Damage by Operator's Contractor (Second Party)																			
☐ Excavation Damage by Third Party																			
☐ Previous Damage due to Excavation Activity	Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld. 1. Has one or more internal inspection tool collected data at the point of the Accident? ☐ Yes ☐ No 1.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: <table border="0"> <tr> <td>☐ Magnetic Flux Leakage</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Ultrasonic</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Geometry</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Caliper</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Crack</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Hard Spot</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Combination Tool</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Transverse Field/Triaxial</td> <td>____/____/____/____/____</td> </tr> <tr> <td>☐ Other _____</td> <td>____/____/____/____/____</td> </tr> </table> 2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? ☐ Yes ☐ No 3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident? ☐ Yes ➡ Most recent year tested: ____/____/____/____/____ Test pressure (psig): ____/____/____/____/____ ☐ No 4. Has one or more Direct Assessment been conducted on the pipeline segment? ☐ Yes, and an investigative dig was conducted at the point of the Accident ➡ Most recent year conducted: ____/____/____/____/____ ☐ Yes, but the point of the Accident was not identified as a dig site ➡ Most recent year conducted: ____/____/____/____/____ ☐ No	☐ Magnetic Flux Leakage	____/____/____/____/____	☐ Ultrasonic	____/____/____/____/____	☐ Geometry	____/____/____/____/____	☐ Caliper	____/____/____/____/____	☐ Crack	____/____/____/____/____	☐ Hard Spot	____/____/____/____/____	☐ Combination Tool	____/____/____/____/____	☐ Transverse Field/Triaxial	____/____/____/____/____	☐ Other _____	____/____/____/____/____
☐ Magnetic Flux Leakage	____/____/____/____/____																		
☐ Ultrasonic	____/____/____/____/____																		
☐ Geometry	____/____/____/____/____																		
☐ Caliper	____/____/____/____/____																		
☐ Crack	____/____/____/____/____																		
☐ Hard Spot	____/____/____/____/____																		
☐ Combination Tool	____/____/____/____/____																		
☐ Transverse Field/Triaxial	____/____/____/____/____																		
☐ Other _____	____/____/____/____/____																		

*6. Did the Operator get prior notification of the excavation activity? ☐ Yes ☐ No

*6.a If Yes, Notification received from: *(select all that apply)* ☐ One-Call System ☐ Excavator ☐ Contractor ☐ Landowner

7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)? ☐ Yes ☐ No

*8. Right-of-Way where event occurred: *(select all that apply)*

☐ Public ➡ Specify: ☐ City Street ☐ State Highway ☐ County Road ☐ Interstate Highway ☐ Other

☐ Private ➡ Specify: ☐ Private Landowner ☐ Private Business ☐ Private Easement

☐ Pipeline Property/Easement

☐ Power/Transmission Line

☐ Railroad

☐ Dedicated Public Utility Easement

☐ Federal Land

☐ Data not collected

☐ Unknown/Other

*9. Type of excavator: *(select only one)*

☐ Contractor ☐ County ☐ Developer ☐ Farmer ☐ Municipality ☐ Occupant

☐ Railroad ☐ State ☐ Utility ☐ Data not collected ☐ Unknown/Other

*10. Type of excavation equipment: *(select only one)*

☐ Auger ☐ Backhoe/Trackhoe ☐ Boring ☐ Drilling ☐ Directional Drilling

☐ Explosives ☐ Farm Equipment ☐ Grader/Scraper ☐ Hand Tools ☐ Milling Equipment

☐ Probing Device ☐ Trencher ☐ Vacuum Equipment ☐ Data not collected ☐ Unknown/Other

*11. Type of work performed: *(select only one)*

☐ Agriculture ☐ Cable TV ☐ Curb/Sidewalk ☐ Building Construction ☐ Building Demolition

☐ Drainage ☐ Driveway ☐ Electric ☐ Engineering/Surveying ☐ Fencing

☐ Grading ☐ Irrigation ☐ Landscaping ☐ Liquid Pipeline ☐ Milling

☐ Natural Gas ☐ Pole ☐ Public Transit Authority ☐ Railroad Maintenance ☐ Road Work

☐ Sewer (Sanitary/Storm) ☐ Site Development ☐ Steam ☐ Storm Drain/Culvert ☐ Street Light

☐ Telecommunications ☐ Traffic Signal ☐ Traffic Sign ☐ Water ☐ Waterway Improvement

☐ Data not collected ☐ Unknown/Other

*12. Was the One-Call Center notified? ☐ Yes ☐ No

*12.a If Yes, specify ticket number: / / / / / / / / / / / / / / / / / /

*12.b If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:

*17. Description of the CGA-DIRT Root Cause (*select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well*):

☐ One-Call Notification Practices Not Sufficient: (*select only one*)

- ☐ No notification made to the One-Call Center
- ☐ Notification to One-Call Center made, but not sufficient
- ☐ Wrong information provided

☐ Locating Practices Not Sufficient: (*select only one*)

- ☐ Facility could not be found/located
- ☐ Facility marking or location not sufficient
- ☐ Facility was not located or marked
- ☐ Incorrect facility records/maps

☐ Excavation Practices Not Sufficient: (*select only one*)

- ☐ Excavation practices not sufficient (other)
- ☐ Failure to maintain clearance
- ☐ Failure to maintain the marks
- ☐ Failure to support exposed facilities
- ☐ Failure to use hand tools where required
- ☐ Failure to verify location by test-hole (pot-holing)
- ☐ Improper backfilling

☐ One-Call Notification Center Error

☐ Abandoned Facility

☐ Deteriorated Facility

☐ Previous Damage

☐ Data Not Collected

☐ Other / None of the Above (*explain*) _____

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	7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002? ☐ Yes ☐ No 7.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: <table> <tr> <td>☐ Radiography</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Guided Wave Ultrasonic</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Handheld Ultrasonic Tool</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Wet Magnetic Particle Test</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Dry Magnetic Particle Test</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Other _____</td><td>____/____/____/____/____</td></tr> </table>	☐ Radiography	____/____/____/____/____	☐ Guided Wave Ultrasonic	____/____/____/____/____	☐ Handheld Ultrasonic Tool	____/____/____/____/____	☐ Wet Magnetic Particle Test	____/____/____/____/____	☐ Dry Magnetic Particle Test	____/____/____/____/____	☐ Other _____	____/____/____/____/____
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☐ Wet Magnetic Particle Test	____/____/____/____/____												
☐ Dry Magnetic Particle Test	____/____/____/____/____												
☐ Other _____	____/____/____/____/____												
☐ Intentional Damage	*8. Specify: <table> <tr> <td>☐ Vandalism</td><td>☐ Terrorism</td></tr> <tr> <td>☐ Theft of transported commodity</td><td>☐ Theft of equipment</td></tr> <tr> <td>☐ Other _____</td><td></td></tr> </table>	☐ Vandalism	☐ Terrorism	☐ Theft of transported commodity	☐ Theft of equipment	☐ Other _____							
☐ Vandalism	☐ Terrorism												
☐ Theft of transported commodity	☐ Theft of equipment												
☐ Other _____													
☐ Other Outside Force Damage	*9. Descr be: _____												

G5 - Material Failure of Pipe or Weld		Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld." *Only one sub-cause can be picked from shaded left-hand column																			
1. The sub-cause selected below is based on the following: <i>(select all that apply)</i> ☐ Field Examination ☐ Determined by Metallurgical Analysis ☐ Other Analysis _____ ☐ Sub-cause is Tentative or Suspected; Still Under Investigation <i>(Supplemental Report required)</i>																					
☐ Construction-, Installation-, or Fabrication-related		2. List contributing factors: <i>(select all that apply)</i> ☐ Fatigue- or V bration-related: ☐ Mechanically-induced prior to installation (such as during transport of pipe) ☐ Mechanical V bration ☐ Pressure-related ☐ Thermal ☐ Other _____ ☐ Mechanical Stress ☐ Other _____																			
☐ Original Manufacturing-related (NOT girth weld or other welds formed in the field)																					
☐ Environmental Cracking-related		3. Specify: ☐ Stress Corrosion Cracking ☐ Sulfide Stress Cracking ☐ Hydrogen Stress Cracking ☐ Other _____																			
Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.																					
*4. Additional factors: <i>(select all that apply)</i> ☐ Dent ☐ Gouge ☐ Pipe Bend ☐ Arc Burn ☐ Crack ☐ Lack of Fusion ☐ Lamination ☐ Buckle ☐ Wrinkle ☐ Misalignment ☐ Burnt Steel ☐ Other _____																					
*5. Has one or more internal inspection tool collected data at the point of the Accident? ☐ Yes ☐ No *5.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: <table> <tr> <td>☐ Magnetic Flux Leakage Tool</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Ultrasonic</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Geometry</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Caliper</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Crack</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Hard Spot</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Combination Tool</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Transverse Field/Triaxial</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Other _____</td><td>____/____/____/____/____</td></tr> </table>				☐ Magnetic Flux Leakage Tool	____/____/____/____/____	☐ Ultrasonic	____/____/____/____/____	☐ Geometry	____/____/____/____/____	☐ Caliper	____/____/____/____/____	☐ Crack	____/____/____/____/____	☐ Hard Spot	____/____/____/____/____	☐ Combination Tool	____/____/____/____/____	☐ Transverse Field/Triaxial	____/____/____/____/____	☐ Other _____	____/____/____/____/____
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*7. Has one or more Direct Assessment been conducted on the pipeline segment? ☐ Yes, and an investigative dig was conducted at the point of the Accident ☒ Most recent year conducted: ____/____/____/____/____ ☐ Yes, but the point of the Accident was not identified as a dig site ☒ Most recent year conducted: ____/____/____/____/____ ☐ No																					
*8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002? ☐ Yes ☐ No *8.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: <table> <tr> <td>☐ Radiography</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Guided Wave Ultrasonic</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Handheld Ultrasonic Tool</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Wet Magnetic Particle Test</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Dry Magnetic Particle Test</td><td>____/____/____/____/____</td></tr> <tr> <td>☐ Other _____</td><td>____/____/____/____/____</td></tr> </table>				☐ Radiography	____/____/____/____/____	☐ Guided Wave Ultrasonic	____/____/____/____/____	☐ Handheld Ultrasonic Tool	____/____/____/____/____	☐ Wet Magnetic Particle Test	____/____/____/____/____	☐ Dry Magnetic Particle Test	____/____/____/____/____	☐ Other _____	____/____/____/____/____						
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☐ Dry Magnetic Particle Test	____/____/____/____/____																				
☐ Other _____	____/____/____/____/____																				

G6 - Equipment Failure - *only one **sub-cause** can be picked from shaded left-hand column

☐ Malfunction of Control/Relief Equipment	*1. Specify: <i>(select all that apply)</i> ☐ Control Valve ☐ Instrumentation ☐ SCADA ☐ Communications ☐ Block Valve ☐ Check Valve ☐ Relief Valve ☐ Power Failure ☐ Stopple/Control Fitting ☐ ESD System Failure ☐ Other _____
☐ Pump or Pump-related Equipment	*2. Specify: ☐ Seal/Packing Failure ☐ Body Failure ☐ Crack in Body ☐ Appurtenance Failure ☐ Other _____
☐ Threaded Connection/Coupling Failure	3. Specify: ☐ Pipe Nipple ☐ Valve Threads ☐ Mechanical Coupling ☐ Threaded Pipe Collar ☐ Threaded Fitting ☐ Other _____
☐ Non-threaded Connection Failure	*4. Specify: ☐ O-Ring ☐ Gasket ☐ Seal (NOT pump seal) or Packing ☐ Other _____
☐ Defective or Loose Tubing or Fitting	
☐ Failure of Equipment Body (except Pump), Tank Plate, or other Material	
☐ Other Equipment Failure	*5. Describe: _____ _____

Complete the following if any Equipment Failure sub-cause is selected.*6. Additional factors that contributed to the equipment failure: *(select all that apply)*

- ☐ Excessive vibration
- ☐ Overpressurization
- ☐ No support or loss of support
- ☐ Manufacturing defect
- ☐ Loss of electricity
- ☐ Improper installation
- ☐ Mismatched items (different manufacturer for tubing and tubing fittings)
- ☐ Dissimilar metals
- ☐ Breakdown of soft goods due to compatibility issues with transported commodity
- ☐ Valve vault or valve can contributed to the release
- ☐ Alarm/status failure
- ☐ Misalignment
- ☐ Thermal stress
- ☐ Other _____

G7 - Incorrect Operation - *only one **sub-cause** can be picked from shaded left-hand column

☐ Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage	
☐ Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow	*1. Specify: ☐ Valve misalignment ☐ Incorrect reference data/calculation ☐ Miscommunication ☐ Inadequate monitoring ☐ Other _____
☐ Valve Left or Placed in Wrong Position, but NOT Resulting in a Tank, Vessel, or Sump/Separator Overflow or Facility Overpressure	
☐ Pipeline or Equipment Overpressured	
☐ Equipment Not Installed Properly	
☐ Wrong Equipment Specified or Installed	
☐ Other Incorrect Operation	*2. Describe: _____

Complete the following if any Incorrect Operation sub-cause is selected.*3. Was this Accident related to: *(select all that apply)*

- ☐ Inadequate procedure
☐ No procedure established
☐ Failure to follow procedure
☐ Other: _____

*4. What category type was the activity that caused the Accident:

- ☐ Construction
☐ Commissioning
☐ Decommissioning
☐ Right-of-Way activities
☐ Routine maintenance
☐ Other maintenance
☐ Normal operating conditions
☐ Non-routine operating conditions (abnormal operations or emergencies)

*5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program? ☐ Yes ☐ No

*5.a If Yes, were the individuals performing the task(s) qualified for the task(s)?

- ☐ Yes, they were qualified for the task(s)
☐ No, but they were performing the task(s) under the direction and observation of a qualified individual
☐ No, they were not qualified for the task(s) nor were they performing the task(s) under the direction and observation of a qualified individual

G8 – Other Accident Cause - *only one **sub-cause** can be picked from shaded left-hand column

☐ Miscellaneous	*1. Describe: _____
☐ Unknown	*2. Specify: ☐ Investigation complete, cause of Accident unknown ☐ Still under investigation, cause of Accident to be determined* (*Supplemental Report required)

***PART I – PREPARER AND AUTHORIZED SIGNATURE**

Authorized Signature's E-mail Address

REGULATORY CROSS REFERENCE

PAGE

DOT/PHMSA 49 CFR Part 194 Cross Reference..... Cross Ref-2

DOT/PHMSA 49 CFR PART 194 CROSS REFERENCE

§ 194.105		BRIEF DESCRIPTION	LOCATION in PLAN
(a)	...	determine the worst case discharge ... provide methodology, including calculations, used to arrive at the volume.	App. B
(b)		The worst case discharge is the largest volume, in barrels, of the following:	-----
(b)(1)	...	maximum release time in hours, plus the maximum shutdown response time in hours, multiplied by the maximum flow rate expressed in barrels per hour, plus the largest line drainage volume after shutdown of the line section(s) ...; or	App. B
(b)(2)		The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels, based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken; or	N/A (App B)
(b)(3)		If the response zone contains one or more breakout tanks, the capacity of the single largest tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system, expressed in barrels.	N/A (App B)
(b)(4)		Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures as follows:...	App B
§ 194.107		BRIEF DESCRIPTION	LOCATION in PLAN
(a)		Each response plan must plan for resources for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge.	App A
(b)		An operator must certify in the plan ... reviewed NCP and each applicable ACP...	Foreword
(b)(1)		As a minimum to be consistent with the NCP as a facility response plan must:	-----
(b)(1)(i)		Demonstrate an operator's clear understanding of the function of the Federal response structure...	App D
(b)(1)(ii)		Establish provisions to ensure the protection of safety at the response site; and	§ 5.2, ICS Forms § 5.0
(b)(1)(iii)		Identify the procedures to obtain any required Federal and State permissions for using alternative response strategies such as in-situ burning and dispersants...	§ 6.7, Appendix E
(b)(2)		As a minimum, to be consistent with the applicable ACP the plan must:	-----
(b)(2)(i)		Address the removal of a worst case discharge and the mitigation or prevention of a substantial threat of a worst case discharge;	§ 3.0, App B
(b)(2)(ii)		Identify environmentally and economically sensitive areas;	§ 6.0
(b)(2)(iii)		Describe the responsibilities of the operator and of Federal, State and local agencies in removing a discharge and in mitigating or preventing a substantial threat of a discharge; and	App D
(b)(2)(iv)		Establish the procedures for obtaining an expedited decision on use of dispersants or other chemicals.	§ 6.7
(c)		Each response plan must include:	----
(c)(1)		A core plan consisting of ...	----
(c)(1)(i)		An information summary as required in § 194.113,	Fig 1.1
(c)(1)(ii)		Immediate notification procedures,	§ 2.0
(c)(1)(iii)		Spill detection and mitigation procedures,	§ 3.0
(c)(1)(iv)		The name, address, and telephone number of the oil spill response organization, if appropriate,	Figure 2.6, App A
(c)(1)(v)		Response activities and response resources,	§ 3.0, App A
(c)(1)(vi)		Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support,	Fig 2.5
(c)(1)(vii)		Training procedures,	App D

DOT/PHMSA 49 CFR PART 194 CROSS REFERENCE (Cont'd)

§ 194.107		BRIEF DESCRIPTION	LOCATION in PLAN
(c)(1)(viii)	Equipment testing.		App D
(c)(1)(ix)	Drill program – an operator will satisfy the requirement for a drill program by following the National Preparedness for Response Exercise Program (PREP) guidelines. An operator choosing not to follow PREP guidelines must have a drill program that is equivalent to PREP. The operator must describe the drill program in the response plan and OPS will determine if the program is equivalent to PREP.		App D
(c)(1)(x)	Plan review and update procedures;		§ 1.4
(c)(2)	An appendix for each response zone that includes the information required in paragraph (c)(1)(i)-(ix) of this section and the worst case discharge calculations that are specific to that response zone. An operator submitting a response plan for a single response zone does not need to have a core plan and a response zone appendix. The operator of a single response zone onshore pipeline shall have a single summary in the plan that contains the required information in § 194.113.7; and.		N/A
(c)(3)	A description of the operator's response management system including the functional areas of finance, logistics, operations, planning, and command. The plan must demonstrate that the operator's response management system uses common terminology and has a manageable span of control, a clearly defined chain of command, and sufficient trained personnel to fill each position.		App D
§ 194.111		BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each operator shall maintain relevant portions of its response plan at the operator's headquarters and at other locations from which response activities may be conducted, for example, in field offices, supervisor's vehicles, or spill response trailers.		Foreword Distribution List
(b)	Each operator shall provide a copy of its response plan to each qualified individual		Foreword Distribution List
§ 194.113		BRIEF DESCRIPTION	LOCATION in PLAN
(a)	The information summary for the core plan, required by § 194.107, must include:		----
(a)(1)	The name and address of the operator.		Fig 1.1
(a)(2)	For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in § 194.103, a listing and description of the response zones, including county(s) and state(s).		Fig 1.1
(b)	The information summary for the response zone appendix, required in § 194.107, must include:		----
(b)(1)	The information summary for the core plan.		Fig 1.1
(b)(2)	The names or titles and 24-hour telephone numbers of the qualified individual(s) and at least one alternate qualified individual(s);		Fig 1.1, Fig. 2.2
(b)(3)	The description of the response zone, including county(s) and state(s), for those zones in which a worst case discharge could cause substantial harm to the environment.		Fig 1.1
(b)(4)	A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation.		Fig 1.1
(b)(5)	The basis for the operator's determination of significant and substantial harm.		Foreword, Fig 1.1
(b)(6)	The type of oil and volume of the worst case discharge.		Fig 1.1, App B

**DOT/PHMSA 49 CFR PART 194
CROSS REFERENCE (Cont'd)**

§ 194.115		BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.		App A
(b)	An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge.		App A
§ 194.117		BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each operator shall conduct training to ensure that:		-----
(a)(1)	All personnel know --		-----
(a)(1)(I)	Their responsibilities under the response plan		App D
(a)(1)(ii)	The name and address of, and the procedure for contacting, the operator on a 24-hour basis		§ 2.0, Fig 1.1
(a)(1)(iii)	The name of, and procedures for contacting, the qualified individual on a 24-hour basis		Fig 1.1, Fig. 2.2, § 2.0,
(a)(2)	Reporting personnel know --		-----
(a)(2)(I)	The content of the information summary of the response plan.		Fig 1.1
(a)(2)(ii)	The toll-free telephone number of the National Response Center		Fig 2.4, Fig. 2.5
(a)(2)(iii)	The notification process		§ 2.0, Fig. 2.5
(a)(3)	Personnel engaged in response activities know --		-----
(a)(3)(I)	The characteristics and hazards of the oil discharged		§ 3.0
(a)(3)(ii)	The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions.		§ 3.0
(a)(3)(iii)	The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage		§ 3.0
(a)(3)(iv)	The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus		§ 3.0
(b)	Each operator shall maintain a training record for each individual that has been trained as required by this section. These records must be maintained in the following manner as long as the individual is assigned duties under the response plan		-----
(b)(1)	Records for operator personnel must be maintained at the operator's headquarters		App D
(b)(2)	Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator.		App D
(b)(3)	Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120 ...		App D

DOT/PHMSA 49 CFR PART 194
CROSS REFERENCE (Cont'd)

§ 194.119		BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each owner shall submit two copies...		Distribution
(b)	...PHMSA will notify the operator of any alleged deficiencies...		-----
(c)	The operator...may petition PHMSA for reconsideration within 30 days...		-----
(d)	...PHMSA will approve the Response Plan...		-----
(e)	...The operator may submit a certification to PHMSA...that the operator has obtained, through contract or other approved means, the necessary private personnel and equipment to record, to the maximum extent practicable, to a worst case discharge...		Foreword (Operator's Statement)
(f)	...PHMSA may require an operator to provide a copy of the response plan to the OSC...		-----

**REGULATORY AGENCY CORRESPONDENCE
AND OTHER AGENCY REQUIREMENTS**
