OIL SPILL RESPONSE PLAN

Copano Double Eagle Pipeline

Prepared for:

Kinder Morgan
1001 Louisiana Street, Suite 1000
Houston , Texas 77002

Prepared by:

Witt O'Brien's
818 Town & Country Blvd., Suite 200
Houston, TX 77024-4564
Phone: (281) 320-9796 | Fax: (281) 320-9700
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

Kinder Morgan 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 United States 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 Coordinator (OSC), and

3. Obligate funds required to carry out response activities.

Plan Approved:

Director Operations

Signature | Title

Jim Doss | 07/10/2013

Name (please type or print) | Date

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: Copano Double Eagle Pipeline

CORPORATE ADDRESS: 1001 Louisiana Street, Suite 1000
Houston, Texas 77002

1.	Is the pipeline greater than 6 and 5/8 inches (168 mm) in outside nominal diameter, greater than 10 miles (16.1 km) in length? and	Yes✓ No
2.	Has any line section experienced a release greater than 1,000 barrels (159 cubic meters) within the previous five years? or	Yes No✓
3.	Has any line section experienced two or more reportable releases, as defined in 49 CFR 195.50, within the previous five years? or	Yes No✓
4.	Does any line section contain any electric resistance welded pipe, manufactured prior to 1970 and operates at a maximum operating pressure established under 49 CFR 195.406 that corresponds to a stress level greater than 50 percent of the specified minimum yield strength of the pipe? or	Yes No✓
5.	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
6.	Is any line located within a 1-mile (1.6 km) radius of potentially affected environmentally sensitive areas and could reasonably be expected to reach these areas?	Yes✓ No

Kinder Morgan hereby certifies to the Pipeline and Hazardous Materials Safety Administration of the U.S. 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.

Signature	Title
Jim Doss	07/10/2013
Name (please type or print)	Date

Director Operations

NOTE: It is the responsibility of the holder of this Plan to ensure that all changes and updates are made. The Plan Holder must:

- Remove and discard obsolete pages.
- Replace obsolete pages with the updated pages.

REVISION RECORD		
CHANGE DATE	**AFFECTED PAGE NUMBER(S)**	**DESCRIPTION OF CHANGE(S)**
June, 2013	Entire Plan	New Plan distribution by Witt O'Brien'
December, 2013	1-6, 1-7, B-2, B-3; Response Zone Annex 1, 3	November 26, 2013 PHMSA Letter of Correction response.

DISTRIBUTION LIST	
COPY NUMBER	**PLAN HOLDER[1]**
1, 2 (Electronic Copies)	Office of Pipeline Safety PHP-5 Pipeline & Hazardous Material Safety Admin. 1200 New Jersey Avenue S.E. Room E22-321 Washington, District Of Columbia 20590
3 (Electronic Copy)	Texas Railroad Commission (TRRC) Pipeline Safety Section 1701 N. Congress Austin, Texas 78711
4	Jim Doss Director-Operations 1001 Louisiana Street, Suite 1000 Houston, Texas 77002
5	Seth Strause Supervisor-Operations 3324 IH 37 North Three Rivers, Texas 78071
6	Gary Brothers Manager-Operations 3240 W FM 1161 Wharton, Texas 77488-3755
Kinder Morgan ePlanPro System	Kinder Morgan ePlanPro Enterprise System Accessible to all Responsible Personnel Hosted Online ,

NOTE[1]: The Distribution of this Plan is controlled by the Copy Number located on the front cover or CD label. 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.

1.0 INTRODUCTION AND PLAN CONTENT

1.1 PLAN PURPOSE/OBJECTIVES

The purpose of this Oil Spill Response Plan (Plan) is to assist Kinder Morgan personnel in preparing for and responding quickly and safely to emergencies originating from the pipelines and associated facilities. The Plan provides techniques and guidelines for achieving an efficient, coordinated, and effective response to emergencies which may occur along the pipeline.

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.
- Ensure compliance with federal, state, and local oil pollution regulations.
- Document equipment, manpower, and other resources available to assist with the response.
- Ensure compliance with the U.S. National Oil and Hazardous Substances Contingency Plan and associated Area Contingency Plan(s) 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 - Response Plans for Onshore Oil Pipelines.

This Plan contains prioritized procedures for Company personnel to prevent or mitigate emergencies resulting from the operation of the pipeline. A description of the Pipeline's details is presented in Figure 1.1 with additional information provided in the sections, appendices and annexes.

1.3 CONTROLLED PLAN DISTRIBUTION PROCEDURES

is responsible for maintenance and distribution of the Plan. Distribution will be handled in the following manner:

- Distribution of controlled Plans is determined by the copy number assigned to agency and designated corporate Plan Holders. A distribution list is included in the Foreword.
- 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 controlled 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 controlled 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

Review/Update

The Plan resides as a web-based document, which permits authorized Corporate and field staff access to make:

- Appropriate revisions as required by operational or organizational changes.
- Appropriate revisions as required by changes in the names and phone numbers detailed in Section 2.0.
- Appropriate revisions as required by improved procedures or deficiencies identified during response team tabletop exercises or actual emergency responses.

Incorporation of Plan Revisions

Email notification allows Authorized Plan Holders to update hard copy Plans as changes occur.

The Individual Plan Holder shall:

- Review and insert the revised pages into the Plan.
- Discard or archive the obsolete pages.

Agency Revision Requirements

Company shall revise and resubmit changes to the U.S. DOT/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 provides 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.

1.5 REGULATORY COMPLIANCE

DOT/PHMSA must be provided with two copies of 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 Emergency 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.

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

The response zones have been reviewed for consistency with the following plans:

- U.S. EPA Region 6 Regional Contingency Plan
- Central Texas Coastal Area Contingency Plan

FIGURE 1.1

FACILITY INFORMATION

GENERAL INFORMATION	
Facility Name:	Copano Double Eagle Pipeline
U.S. DOT/PHMSA Control:	2410
Operator Name:	Copano Double Eagle Pipeline
Address:	***Physical Address*** 3324 IH 37 North Three Rivers, Texas 78071 ***Operator's Address*** 1001 Louisiana Street, Suite 1000 Houston, Texas 77002
Mainline Number:	(800) 265-5000 (24 Hours)
Contact Person:	Jim Doss, Director Operations
Primary NAICS Code:	486110
Determination of Significant and Substantial Harm (U.S. DOT PHMSA):	The pipeline is greater than 6 and 5/8 inches in outside diameter, greater than 10 miles long, is located within a 5-mile radius of potentially affected public water intakes, and located within a 1-mile radius of potentially affected environmentally sensitive areas.
Operator Statement of (U.S.DOT PHMSA) "Significant and Substantial Harm":	It is Kinder Morgan 's goal to respond as quickly as possible to all uncontrolled releases of petroleum products, regardless of the source point location along the system. Based upon this goal, and the overbreadth of the definitions provided in 49 CFR 194.103(c)(4) & (5), the Company is compelled to consider all the active line sections listed below in the Response Zone Annexes as capable of a release potentially causing "significant and substantial harm".

PIPELINE LOCATION	
States/Counties:	The System covers 1 specific response zone(s) covering 1 state(s) and 7 county(ies) specifically detailed in the response zone annex.
States Traversed:	Texas
Pipeline System Overview Diagram:	**See Figure 1.2**

PHYSICAL DESCRIPTION - PIPELINE

Response Zone(s):

- Double Eagle Response Zone

General:

- The Copano Double Eagle Pipeline includes pipeline sections described below as well as supporting equipment and facilities.
- This Plan is written in English and understood by personnel responsible for carrying out the Plan.

Pipeline Specifications:

- ***Products Type:***

  Crude Oil

- ***Pipe Detail:*** The pipeline system consists of the following pipeline sections with the indicated diameters.
  - Segment #1 - Gardendale Leg (Gardendale to Three Rivers) - 85 miles, 12" diameter, 0.33" wall thickness.
  - Segment #2 - Karnes Leg (Three Rivers to Karnes) - 37.2 miles, 12" diameter, 0.33" wall thickness.
  - Segment #3 - Three Rivers to Corpus Christi - 14 miles,16" diameter, 0.312" wall thickness; 35.8 miles, 14" diameter, 0.25" wall thickness; 10.3 miles of 12" diameter, 0.25" wall thickness; 8.3 miles, 16" diameter, 0.312" wall thickness; 4.7 miles, 16" diameter, 0.375" wall thickness

RESPONSE ZONE INFORMATION

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:

- Pipeline rupture/leak
- Explosion and/or fire
- Failure of facility piping
- Equipment failure (e.g. pumping system failure, relief valve failure, etc.)

These scenarios could result in the following discharge volumes (additional details in Appendix B):

Worst Case Discharge (WCD):

Response Zone	Discharge Scenario	Potential Oil Group	Planning Volume
(b) (7)(F) [redacted]			

FIGURE 1.2
PIPING SYSTEM OVERVIEW

(b) (7)(F)

2.0 NOTIFICATION PROCEDURES

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. The typical internal notification responsibilities for each person potentially involved in the initial response are as follows:

Company phone numbers contained herein are considered confidential and are for internal use only.

Detection of Releases

There are several means available to assist personnel to detect and recognize a release. Releases involving unmanned facilities and pipelines may be detected by Supervisory Control and Data Acquisition (SCADA), KMEP personnel or the public.

Estimating Spill Volumes

Initial Estimations

Initial estimations of the amount of released product should be based on visual observation. Use visual observations and the appropriate method described in L O&M 159 Attachment 5 to compute an initial volume estimate. When reporting initial volume, use the word "approximately" when describing the volume, unless the exact volume is known.

Subsequent Estimation

Later in the response, the volume of released product may be determined by utilizing tank gauges and/or pumping rates. For pipeline incidents the volume of released product may be determined by considering the calculation of flow rates in the affected pipeline multiplied by the maximum time to detect the spill and shut off pumps plus an estimated line drain down volume. Company Policy provides that all estimates are reviewed and approved by management before being released.

Notifications

In the event of an emergency, the notification process begins when a KM employee or agent is notified of or becomes aware of a release or threatened release.

A flowchart has been provided to ensure essential internal and external notification procedures are implemented and all levels of management are notified of the situation, as appropriate. **With the exception of notification to 911 and/or local fire/police agencies, Environmental, Health and Safety (EHS-Remediation) and/or Compliance Codes and Standards (CCS) is responsible for making all regulatory required external notifications.** The flowchart is intended to simplify the process by designating what position of employee is required to make certain notifications.

Immediate verbal notification must be made to Houston Control Center (800) 265-6000. After verbal notifications have been made, the Notification Data Sheet (Figure 2.3) must be completed and faxed to the Houston Control Center (713) 369-9394.

For Notification of OSROs

For Notifications of KMEP Oil Spill Removal Organizations, the designated individual shall refer to Figure 2.5.

Guidelines For Considerations When Initiating Notifications

The following are guidelines to be considered when initiating notifications:

- Do not report information that has not been verified or confirmed, usually by field personnel.
- Do not speculate as to the cause of an incident or make any statements about liability.
- Do not delay notifications because of incomplete information.
- When making notifications, document:
  - Agency notified, including telephone number
  - Date and time of notification
  - Person notified
  - Content of message
  - Incident number, if applicable

Periodic Follow-up Notification during Emergency Response

Periodic follow-up notification must be made within KMEP as well as to federal, state, and local agencies. Responsibility for periodic follow-up notifications remains with each individual as initially assigned within the notification process flowcharts provided in Figure 2.1 and Figure 2.4, unless that responsibility has been transferred based on the magnitude of the response.

KMEP Company contact numbers are provided in Figure 2.2 Internal Notification References.

FIGURE 2.1

INTERNAL NOTIFICATION SEQUENCE

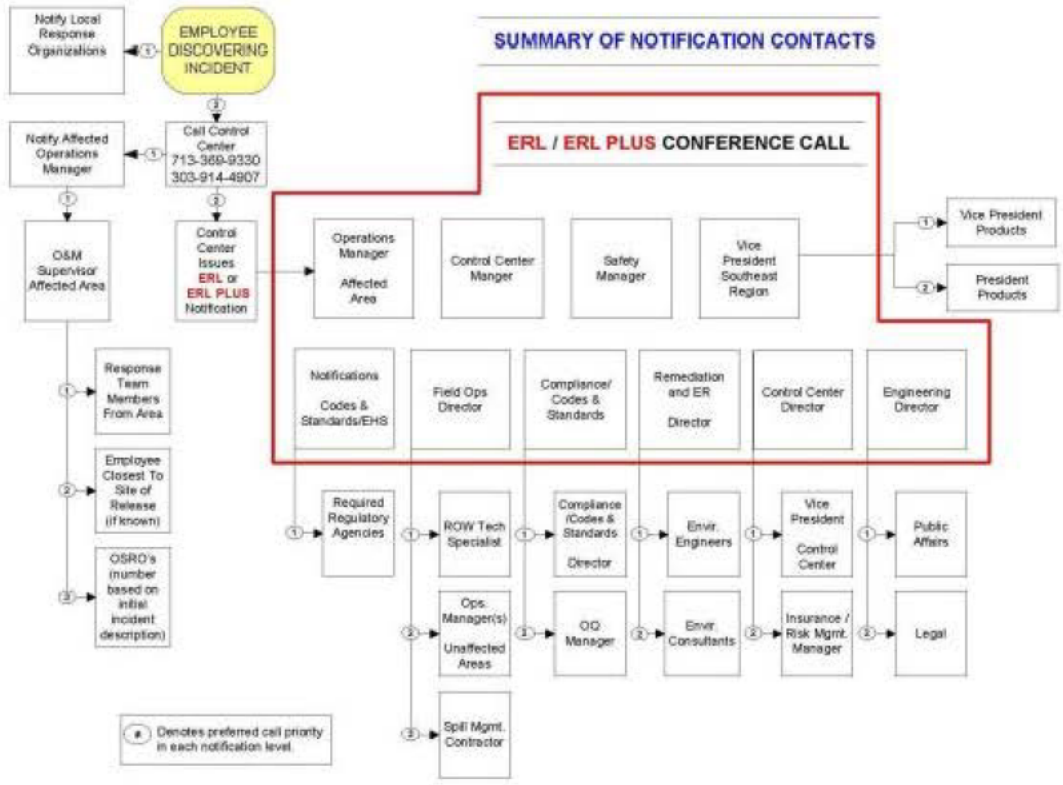


FIGURE 2.2

INTERNAL NOTIFICATION REFERENCES

Double Eagle Response Zone				
POSITION/TITLE	**NAME**	**OFFICE**	**HOME**	**OTHER**
AREA: Double Eagle Response Area				
Director-Operations	Jim Doss	(713) 420-3585	(b) (7)(F)	281) 414-0138 CELL
Manager-Operations	Gary Brothers	(281) 622-1363		281) 622-1363 CELL
Supervisor-Ops. Three Rivers, TX	Seth Strause	(713) 420-3219		713) 254-9484 CELL
Supervisor-Operations Cotulla, Texas	BJ Palumbo	(830) 879-4677 ext 4610		956) 763-0222 CELL
Operations Specialist	Hayden Hayes	(361) 436-0839		361) 436-0839 CELL
Operations Specialist	Herman Kunze	(713) 420-3212		361) 436-0485 CELL

CORPORATE CRISIS SUPPORT PERSONNEL INTERNAL NOTIFICATIONS				
POSITION/TITLE	**NAME**	**OFFICE**	**HOME**	**OTHER**
Operations	Kevin Philbrick	(307) 232-4420	(b) (6)	(307) 262-1633 CELL
Business Management	Mark Kissel	(719) 520-4443		(303) 396-9308 CELL
Business Management	Randy Holstlaw	(303) 914-4517		(303) 907-2491 CELL
Alt. Houston Media Relations	Joe Hollier	(713) 369-9176		(713) 823-5419 CELL
Alt. Legal	Christie Billings	(713) 369-9413		(713) 882-6308 CELL
Alt. EPA / Environmental	John Greer	(713) 369-9193		(713) 829-0209 CELL
Alt. Engineering	Bruce Olsen	(303) 914-7796		(303) 681-6509 CELL
Alt. Procurement	Lance Bradford	(303) 914-7801		(303) 726-5456 CELL
Alt. Procurement	David Nelson	(713) 369-8513		(832) 326-7281 CELL
Procurement	Corey Staab	(713) 369-9676		(303) 204-1526 CELL
Business Management	Dave Devine Jr.	(713) 369-9310		(713) 817-6444 CELL
Business Management	James Brett	(630) 725-3040		(630) 437-0103 CELL
Business Management	Rene Jagot	(713) 369-9242		(713) 819-4188 CELL
Business Management	Duane Kokinda	(713) 369-9409		(713) 252-4911 CELL

CORPORATE CRISIS SUPPORT PERSONNEL INTERNAL NOTIFICATIONS (Cont'd)				
POSITION/TITLE	**NAME**	**OFFICE**	(b) (6)	**OTHER**
Lakewood Control Center	Eddy Thomas	(303) 914-4907		(303) 242-4347 CELL
Lakewood Control Center	Stefan Evanoff	(303) 914-7828		(303) 941-4664 CELL
Business Management	David Kinder	(713) 369-9469		(713) 829-3400 CELL
Business Management	Peter Barbour	(303) 763-3248		(303) 489-3196 CELL
DOT / Pipeline Safety	Toby Fore	(713) 369-9413		(713) 899-3319 CELL
EPA / Environmental	Tom Bach	(303) 914-7842		(303) 910-8235 CELL
Engineering	Jorge Torres	(713) 369-9232		(713) 824-8962 CELL
Operations	Ed Donohoe	(308) 865-0720		(308) 390-1069 CELL
Operations	Allen Fore	(630) 725-3044		(815) 988-2873 CELL
Operations	Joe Mclaughlin	(713) 369-9847		(630) 269-3006 CELL
Operations	Bob Montgomery	(806) 379-2041 Ext: 225		(806) 679-0320 CELL
Liaison	Yvette Abraham	(713) 369-9513		(713) 203-8361 CELL
IC / President - Products Pipelines	Ron McClain	(713) 369-9152		(832) 418-1470 CELL
Alt. Incident Commander/Operations	James Holland	(713) 369-9428		(714) 231-0126 CELL

CORPORATE CRISIS SUPPORT PERSONNEL INTERNAL NOTIFICATIONS (Cont'd)				
POSITION/TITLE	**NAME**	**OFFICE**	(b) (6)	**OTHER**
Coast Guard Liaison	Chuck Mathis	(713) 369-8530		(832) 405-1701 CELL
DOT Liaison	Buzz Fant	(713) 369-9454		(713) 724-7533 CELL
Liaison	Jaime Hernandez	(713) 369-9443		(281) 384-5609 CELL
Legal	Jessica Toll	(303) 763-3313		(303) 668-7805 CELL
Alt. Legal	Nancy Van Burgel	(303) 914-4634		(303) 910-9356 CELL
Human Resources Planning	Roger Mosby	(713) 369-9466		(713) 898-2558 CELL
Alt. Human Resources Planning	Jim Street	(713) 369-9464		(713) 907-0960 CELL
Planning	Brian Williams	(770) 751-4248		(404) 386-2880 CELL
Investor Relations Public Info	Kim Dang	(713) 369-9470		(713) 201-3007 CELL
Investor Relations Public Info	Mindy Mills Thornock	(713) 369-9449		(713) 369-9449 CELL
Houston Media Relations	Emily Mir	(713) 369-8060		(713) 823-6565 CELL
Houston Media Relations	Larry Pierce	(713) 369-9407		(281) 330-2981 CELL
Webmaster Public Information	Mike Edwards	(713) 369-8012		(832) 373-8624 CELL
Alt. Webmaster Public Information	Azad Haq	(713) 369-9007		(713) 249-1105 CELL

CORPORATE CRISIS SUPPORT PERSONNEL INTERNAL NOTIFICATIONS (Cont'd)				
POSITION/TITLE	**NAME**	**OFFICE**	**HOME**	**OTHER**
Alt. Webmaster Public Information	Ken Thomason	(713) 369-9028	(b) (6)	281) 415-8675 CELL
Risk Management Finance	Steve Hawes	(303) 763-3457		303) 919-2528 CELL
Alt. Risk Management Finance	Bob Dillard	(713) 369-9492		713) 502-9243 CELL
Houston/Alpharetta Logistics	Linda Warner	(713) 369-9229		281) 830-4131 CELL
Alt. Houston Logistics	Orlando Munive Jr.	(713) 369-9225		281) 830-4134 CELL
Lakewood Logistics	Robert Scott	(303) 763-3410		303) 356-4497 CELL
Alt. Lakewood Logistics	Nancy Michelson	(303) 914-4593		303) 551-3943 CELL
Houston IT	Hank Neumann Jr.	(713) 369-9030		713) 206-1384 CELL
Alt. Houston IT	Brian Broyles	(713) 369-9012		713) 819-7074 CELL
Alt. Houston IT	Paul Davis	(713) 369-8946		713) 299-2669 CELL
Procurement	Lisa Shorb	(713) 369-9677		713) 369-9677 CELL
Alt. Procurement	Kathleen Logan	(303) 914-4770		303) 877-6304 CELL
Alt. Procurement	Judy Marsh	(770) 751-4237		770) 842-5434 CELL
Alt. Procurement	Travel Desk	(800) 801-3445		800) 801-3445 CELL

2.2 EXTERNAL NOTIFICATIONS

External notifications are those made to entities outside of the Company including Federal, State and local regulatory agencies, as well as railroad and utility companies. These notifications include both verbal and written requirements.

NOTE: Refer to Figure 2.5 for any additional State written reporting requirements.

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: Copano Double Eagle Pipeline ***Organization Type:*** _____

Facility Address: 3324 IH 37 North ***Owner's Address:*** 1001 Louisiana Street, Suite 1000

Three Rivers , Texas 78071 Houston , Texas 77002

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 discharge (Description): _____

Nearest City: _____

County/Parish: _____ ***State:*** _____ ***Zip Code:*** _____

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	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 impacted medium: _____

CALLER NOTIFICATIONS

National Response Center (NRC): 1-800-424-8802

Additional Notifications (Circle all applicable): ***USCG*** ***EPA*** ***State*** ***OSHA*** ***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.

FIGURE 2.4

EXTERNAL NOTIFICATION FLOWCHART

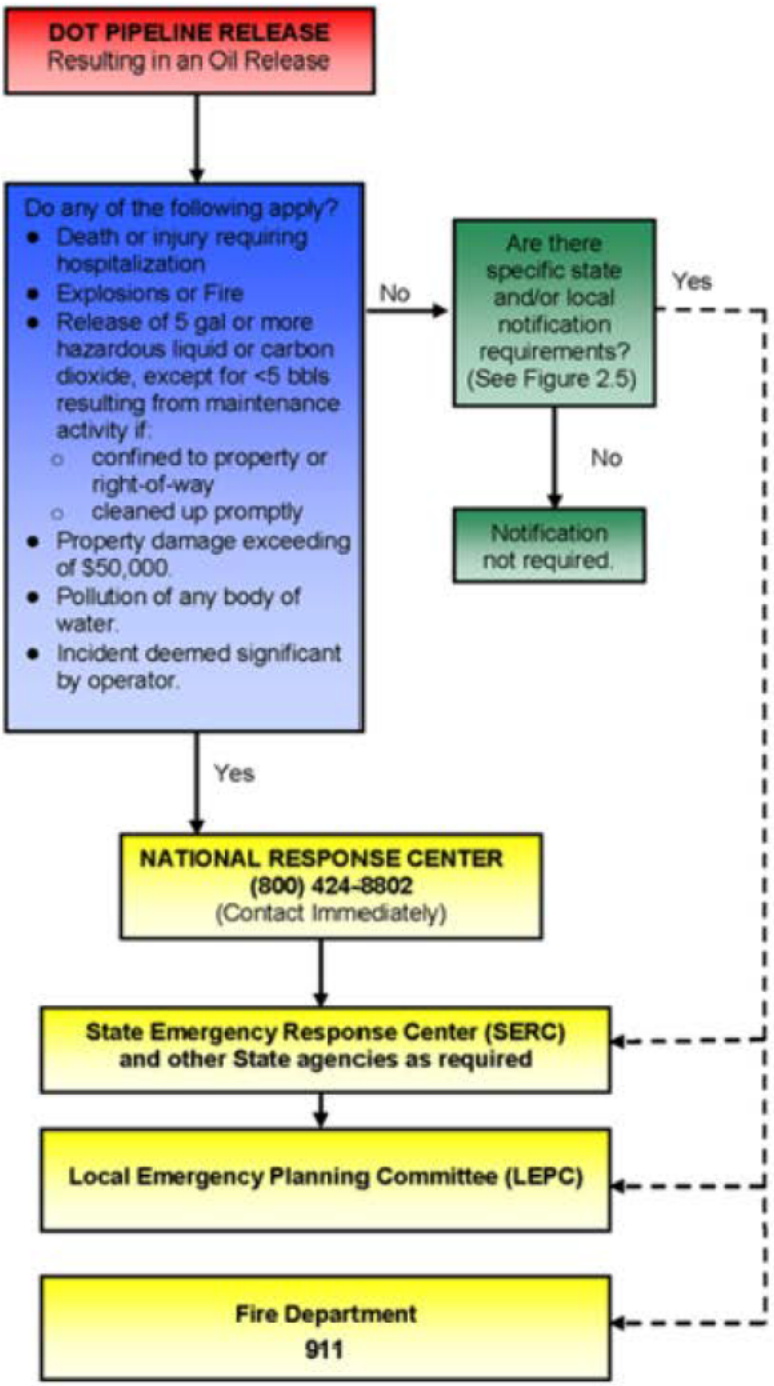


FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES

Required Notifications	
National Response Center (NRC)	
c/o United States Coast Guard (CG-5335) - Stop 7581, 2100 2nd Street, SW Washington, District Of Columbia 20593-0001	(800) 424-8802, (202) 267-2180 (202) 267-2675

REPORTING REQUIREMENTS

TYPE: Any discharge or sighting of oil on navigable waters.
VERBAL: Immediate notification required (within 2 hours).
WRITTEN: If an RQ limit is reached, refer to state requirements for written report requirements.
NOTE: A call to the NRC must also be made for spills or releases of hazardous substances that meet or exceed their RQ.
Additional reporting information may be contained in the Document Library under Other Documents.

Department of Transportation for DOT Jurisdiction Office of Pipeline Safety and Hazardous Material	
1200 New Jersey Avenue SE-E-22-321 Washington, District Of Columbia 20590	(202) 366-4595 (202) 267-2675 NRC Direct (202) 366-4433 PHMSA Switchboard

REPORTING REQUIREMENTS

TYPE: In addition to the reporting of accidents to the NRC, a written accident report may be required for incidents .
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 requisite criteria must be reported on PHMSA Form 7000-1.
NOTE: N/A
Additional reporting information may be contained in the Document Library under Other Documents.

U.S. EPA Region 6	
1445 Ross Avenue Dallas, Texas 75202	(866) 372-7745 (214) 665-2200

REPORTING REQUIREMENTS

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: As the agency may request depending on circumstances
NOTE: N/A
Additional reporting information may be contained in the Document Library under Other Documents.

U.S. Coast Guard - Sector Corpus Christi	
8930 Ocean Dr. Corpus Christi, Texas 78419	(361) 939-6349 (361) 939-6393

REPORTING REQUIREMENTS

TYPE: Immediately for all spills that impact or threaten navigable water or adjoining shoreline.
VERBAL: Notification to the USCG is typically accomplished by the call to the NRC.
WRITTEN: As requested by the Agency.
NOTE: N/A
Additional reporting information may be contained in the Document Library under Other Documents.

Occupational Safety & Health Administration (OSHA)	
200 Constitution Avenue Washington, District Of Columbia 20210	(800) 321-6742

REPORTING REQUIREMENTS

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.
NOTE: N/A
Additional reporting information may be contained in the Document Library under Other Documents.

US Fish & Wildlife Service Southeast Region	
1875 Century Blvd., Suite 400 Atlanta, Georgia 30345	(404) 679-4000 (800) 344-9453

REPORTING REQUIREMENTS

TYPE:
VERBAL:
WRITTEN:
NOTE:
Additional reporting information may be contained in the Document Library under Other Documents.

Texas Commission on Environmental Quality (TCEQ)	
Region 12, 5425 Polk Ave., Ste. H Houston, Texas 77023-1452	(800) 832-8224 (713) 767-3500

REPORTING REQUIREMENTS

TYPE: All spills of oil or petroleum products into water and/or discharges onto land that meet or exceed 5 barrels for Refinery and Chemical Plant or 25 gallons for B & P Plant.
VERBAL: As soon as possible, within 24 hours of discovery.
WRITTEN: As the agency may request, depending on circumstances.
NOTE:
Additional reporting information may be contained in the Document Library under Other Documents.

Texas Railroad Commission / Oil and Gas Division	
1701 N. Congress / P.O.Box 12967 Austin, Texas 78711-2967	(512) 463-6788 (713) 869-5001

REPORTING REQUIREMENTS

TYPE: (16 TAC Section 3.20 (a)-(b)) In the case of a fire, spill or break causing loss of over (5) barrels. For Pipeline incidents reportable to the NRC, notify the TRRC Pipeline Safety Section's District Office
VERBAL: Immediate notification to District Office.
WRITTEN: File Form H-8 in duplicate when appropriate measure have been taken, within 30 days following the date of the incident.
NOTE: N/A
Additional reporting information may be contained in the Document Library under Other Documents.

Texas General Land Office - Region 3	
6300 Ocean Dr. Corpus Christi, Texas 78412	(361) 825-3300

REPORTING REQUIREMENTS

TYPE: Actual or threatened unauthorized discharges of petroleum products into coastal waters.
VERBAL: Immediately.
WRITTEN: As requested by the agency.
NOTE: N/A
Additional reporting information may be contained in the Document Library under Other Documents.

Nueces Co. Office of Emergency Management	
901 Leopard St. Corpus Christi, Texas 78401	(361) 888-0513

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable waters or adjoining shoreline.
VERBAL: Immediately.
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

San Patricio Co. Office of Emergency Management	
300 North Rachal Sinton, Texas 78387	(361) 364-9653 (911 Addressing) (361) 364-9650

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable waters or adjoining shoreline.
VERBAL: Immediately,
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

Bee County LEPC	
111 S. St. Mary's St., Ste. 201 Beeville, Texas 78102	(361) 362-3271

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable waters or adjoining shoreline.
VERBAL: Immediately.
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

Karnes County LEPC	
119 N. Browne St. Karnes City, Texas 78118	(830) 780-3461 (830) 583-2225 (Kenedy)

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable waters or adjoining shoreline.
VERBAL: Immediately.
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

La Salle County LEPC	
P.O. Box 340 Cotulla, Texas 78014	(830) 879-4430

REPORTING REQUIREMENTS

TYPE: Any spill or discharge that meets or exceeds the Federal Reportable Quantity.
VERBAL: Immediately.
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

Live Oak County LEPC	
P.O. Box 1588 George West, Texas 78022	(361) 449-8000 ext. 4 (361) 449-2733 / 2271

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable waters or adjoining shoreline.
VERBAL: Immediately
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

McMullen County LEPC	
P.O. Box 237 Tilden, Texas 78072	(361) 274-3311 (361) 274-3341

REPORTING REQUIREMENTS

TYPE: Immediately for spills that impact or threaten navigable waters or adjoining shoreline.
VERBAL: Immediately.
WRITTEN: As requested by agency.
NOTE: N/A
**** Additional reporting information may be contained in the Document Library under Other Documents.***

USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)		
COMPANY	**LOCATION**	**TELEPHONE**
Corpus Christi Area Oil Spill Control	Corpus Christi, Texas	(361) 882-2656
Miller Environmental Services	Corpus Christi, Texas	(800) 929-7227 / (713) 965-4160

PSAPs		
Texas		
NAME	LOCATION	TELEPHONE
Bee County 911	Beeville, Texas	(361) 362-3221
Karnes County Sheriff's Office	Karnes City, Texas	(830) 780-3931
La Salle County Sheriff	Cotulla, Texas	(830) 879-3041 (Disptach)
Live Oak County Sheriff	George West, Texas	(361) 449-2271
Nueces County EMS (METROCOM)	Corpus Christi, Texas	(361) 826-2900
San Patricio County 911	Sinton, Texas	(361) 364-9600 / (361) 364-9655

ADDITIONAL RESPONSE RESOURCES		
COMPANY	**LOCATION**	**TELEPHONE**
Beeville Publishing Company (Newspaper)	Beeville, Texas	(361) 358-2550
Corpus Christi Caller-Times (Newspaper)	Corpus Christi, Texas	(361) 884-2011
Edge Engineering & Science	Houston, Texas	(281) 578-6100
ENERCON Services Inc.	Oklahoma City, Tulsa, Oklahoma	(405) 722-7693 (OKC) / (918) 665-7693 (Tulsa)
ENERCON Services Inc. (Texas)	Houston, Texas	(713) 941-0401
Karnes Countywide (Newspaper)	Kenedy, Texas	(830) 583-0283
KGWT FM 93.5 (Radio)	George West, Texas	(361) 449-1315
KiiiTV Corpus Christi (Television)	Corpus Christi, Texas	(361) 986-8449
KRXB (Radio)	Beeville, Texas	(361) 358-4941
KWEX 41/Univision (Television)	Three Rivers, Texas	(210) 227-4141
National Weather Service	Corpus Christi, Texas	(361) 289-1861
RPS (Air Emission Issues)	Houston, Dallas, Texas	(281) 448-6188 (Houston) / (214) 951-0807 (Dallas)
Texas Parks and Wildlife Kills and Spills Team	Tyler, Texas	(512) 389-4848
The Progress (Newspaper)	Three Rivers, Texas	(361) 786-3022
The Wildlife Center of Texas	Houston, Texas	(713) 861-9543
Weather	George West, Texas	(361) 449-2943
WOAI News 4 (NBC Affiliate) (Television)	San Antonio, Texas	(210) 226-4444 / (210) 476-1022 (News Tips)

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:

- Initial Response
- Line Break or Leak
- Fire
- Tornadoes
- Bomb Threat
- Medical Emergency
- Severe Thunderstorm/Flash Flooding

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, employees and public safety is first priority.**

The first Company person on scene will function as the Incident Commander (IC) until relieved by an authorized supervisor who will assume the IC position. Transfer of command will take place as more senior management respond to the incident. For response operations within the control of the Local Response Team, the role of IC will typically be assumed and retained by area management.

The person functioning as **Incident Commander** 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

PERSONNEL AND PUBLIC SAFETY IS FIRST PRIORITY

CONTROL

- Eliminate sources of ignition
- Isolate the source of the discharge, minimize further flow

NOTIFY

- Make internal and external notifications
- Activate local Company personnel as necessary
- Activate response contractors and other external resources as necessary

CONTAIN

- Begin spill mitigation and response activities
- Monitor and control the containment and clean-up effort
- Protect the public and environmental sensitive areas

In addition to the potential emergency events outlined in this Section, the Company has identified several "abnormal operations" that could occur at the pipeline facilities. The Company has defined the events and established procedures to identify, eliminate or mitigate the threat of a worst case discharge due to these events. In compliance with 49 CFR 195.402(d), these procedures are defined in the Company's Operations Manual.

First Company Person Notified/On Scene

- Follow the appropriate ***"Specific Incident Response Checklist"*** in Figure 3.1 and ***"Product Specific Response Considerations"*** in Figure 3.2.
- Notify Facility Management of the incident.
- Utilize local emergency services as necessary (police, fire, medical).

Facility Management

- **Evaluate** the Severity, Potential Impact, Safety Concerns, and Response Requirements based on the initial data provided by the first person on scene.
- Assume the role of **Incident Commander**.
- **Confirm safety** aspects at site, including need for personal protective equipment, sources of ignition, and potential need for evacuation.
- Activate the **primary response contractors**, as the situation demands.
- Coordinate/perform **activation of additional spill response contractors**, as the situation demands (telephone reference is provided in Figure 2.5).
- Perform notifications as per Figure 2.1, including Spill Management Team activation, as necessary.
- Coordinate/perform **regulatory agency notification**, as the situation demands (notification procedures and telephone references are provided in Figures 2.4 and 2.5 respectively).
- Proceed to spill site and **coordinate response and clean-up operations**.
- Direct containment, dispersion, and/or clean-up operations in accordance with the ***"Product Specific Response Considerations"*** provided in Figure 3.2.

Local Response Team

- Assigned personnel will immediately respond to a discharge from the Facility, as the situation demands.
- Perform response/clean-up operations as directed or coordinated by the Incident Commander.
- Assist as directed at the spill site.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST

INITIAL RESPONSE

- Take appropriate personal protective measures.
- Call for medical assistance if an injury has occurred.
- Restrict access to the spill site and adjacent area as the situation demands. Take additional steps necessary to minimize any threat to health and safety.
- Verify the type of product and quantity released.
- Advise personnel in the area of any potential threat and/or initiate evacuation procedures.
- Use testing and sampling equipment to determine potential safety hazards, as the situation demands.
- Identify/Isolate the source and minimize the loss of product.
- Take necessary fire response actions.
- Eliminate possible sources of ignition in the near vicinity of the spill.
- Notify Facility Management of the incident.

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

LINE BREAK OR LEAK, SPECIFIC RESPONSE (Including Piping Rupture/ Leak Valve Rupture/Leak and Manifold Failure)

- Notify Management (any level) with the following
  - Location, volume, source and material released
  - Note time found
  - Management to notify Incident Commander and EH&S Department personnel
  - Pull MSDS for product and have it available
  - Initiate internal and external notifications (Incident Commander will ensure agency notifications)
  - Use alternate telephone # for call-backs and out-going calls
  - Begin an incident log with timeline
- Begin initial response
  - Evacuate and secure immediate area
  - Account for contractors and Company personnel
  - Approach from upwind direction
  - Eliminate any potential ignition sources
  - Initiate air monitoring (i.e., O2, LEL, H2S, chemical, heat stress, etc.) and establish hot warm and cold zones
  - First responder to stop source and contain (if possible) in a safe manner
- Local Response Team assemble at Command Post for briefing
  - Fill positions in Incident Management System (IMS)(if required based on size and type of incident)
  - Determine PPE requirements indicated on MSDS or PPE matrix
  - Dispatch equipment needed to contain and start clean-up (use of portable or fixed monitors, vacuum trucks, fire truck, boat, absorbents, non-sparking shovels, etc.)
- Continue initial response/ assess situation
  - Ensure that pumps/ electrical equipment have been shut down
  - Include vessel, ships and docks if spill is at dock or on waterfront
  - Control and direct traffic flow (establish and staff staging area if required)
  - Notify any affected neighboring facilities
  - Consider fence line air monitoring if release will affect property off-site
- Establish objectives and priorities based on this assessment
  - Contain to keep from impacting additional areas (closing dike drains, outfalls, etc.)
  - Maintaining foam blanket will be necessary to suppress vapors if material is flammable and posing a threat of a fire or high LEL levels
  - Vacuum up or absorb free product (all equipment used must be grounded)
  - Stop source safely if first responder could not (due to vapor exposures or risk of fire)

FIRES (MINOR, MAJOR, EXPLOSION) SPECIFIC RESPONSE

Individual Discovering the Fire (All Employees)

In the event that a fire response is required by the Local Response Team, the following actions should be taken in order:

NOTE: KM personnel do not have fire brigade training and are only permitted to use fire extinguishers in small incipient stage fires. If the situation warrants, and your personal safety is ensured, initial efforts to extinguish small incipient stage fires may prove to be the best action. In these situations, if you believe that your personal safety is not at risk, and you can take interim measures to mitigate a situation while the Emergency Responders are deploying- do so.

- Notify Management (any level).
- Acknowledge information and switch all emergency communications to an alternate channel.
- Have the Local Response Team members secure all operations on which they are working before responding.
- Note time of call.
- Contact the local fire department (911).
- Have staff member check weather for any changes in wind direction.

- Account for contractors and Company personnel.
- Incident Commander (IC) mobilize to scene.
  - Check wind direction - **approach from upwind.**
  - Confirm and conduct a preliminary assessment of the situation upon arrival at the scene.
  - Evaluate scene for potential hazards (i.e., overhead power lines, obstacles wind direction).
  - Determine what product is involved and have MSDS pulled and reviewed for PPE and firefighting instructions.
- Assemble the Local Response Team at the Command Post.
  - Fill positions (as required) in the Incident Management System.
  - If not already present, notify IC, Safety Officer, and Operations Chief.
  - Initiate internal and external notifications in accordance with the fire and other emergency response plans.
- Eliminate any sources of ignition in the immediate area.
- Shut down pumps and any movement into/ out of area.
- Shut down contractor activity.
- Stop traffic flow into and out of area.
- Adjacent tank pumps and motors.
- Be aware of static electricity.
- Assist the fire department in establishing objectives and priorities based on this assessment.
  - Availability of water or foam resources and locations of monitors and hydrants.
  - Overhead power lines. DO NOT flow water near them.
  - Water will quickly fill the dike area and the need to evaluate the water usage and determine whether or not to open/close the internal and external dike drains.
  - Determine off site flowpath and potential impact of firefighting water and product.

SEVERE THUNDERSTORM (Flash Flooding) SPECIFIC RESPONSE

Natural Disaster (Tornado and Severe Storms)

Although many disasters cannot be prevented or predicted, preparation can significantly reduce losses. In the event of a severe weather condition or a natural disaster, the Area Manager or an Operator will be the Emergency Coordinator.

- **Be Aware of Changing Weather Conditions**
  1. Tornado watch - conditions are right for the formation of a tornado.
  2. Tornado warning - a tornado has been sighted but is not in the area at this time.
  3. Tornado alert - a tornado has been sighted in the immediate area take cover immediately
- **If Severe Weather Conditions Threaten**
  1. Alert Facility personnel of condition.
  2. If time permits, all personnel should assemble at an inside room in the Facility for shelter.
  3. If time does not permit, seek shelter in low level area away from glass.
  4. Make certain that Facility personnel are aware of the condition.
  5. Stay in shelter until **"all clear"** has been issued.
- **Immediately After the Storm**
  1. Account for all personnel.
  2. Survey for damages to the Facility.
  3. Initiate team for any repairs if needed (i.e. high tank alarms, lighting, etc.).
  4. Refer to this Plan for additional response guidance regarding fires, spills, etc., as needed.

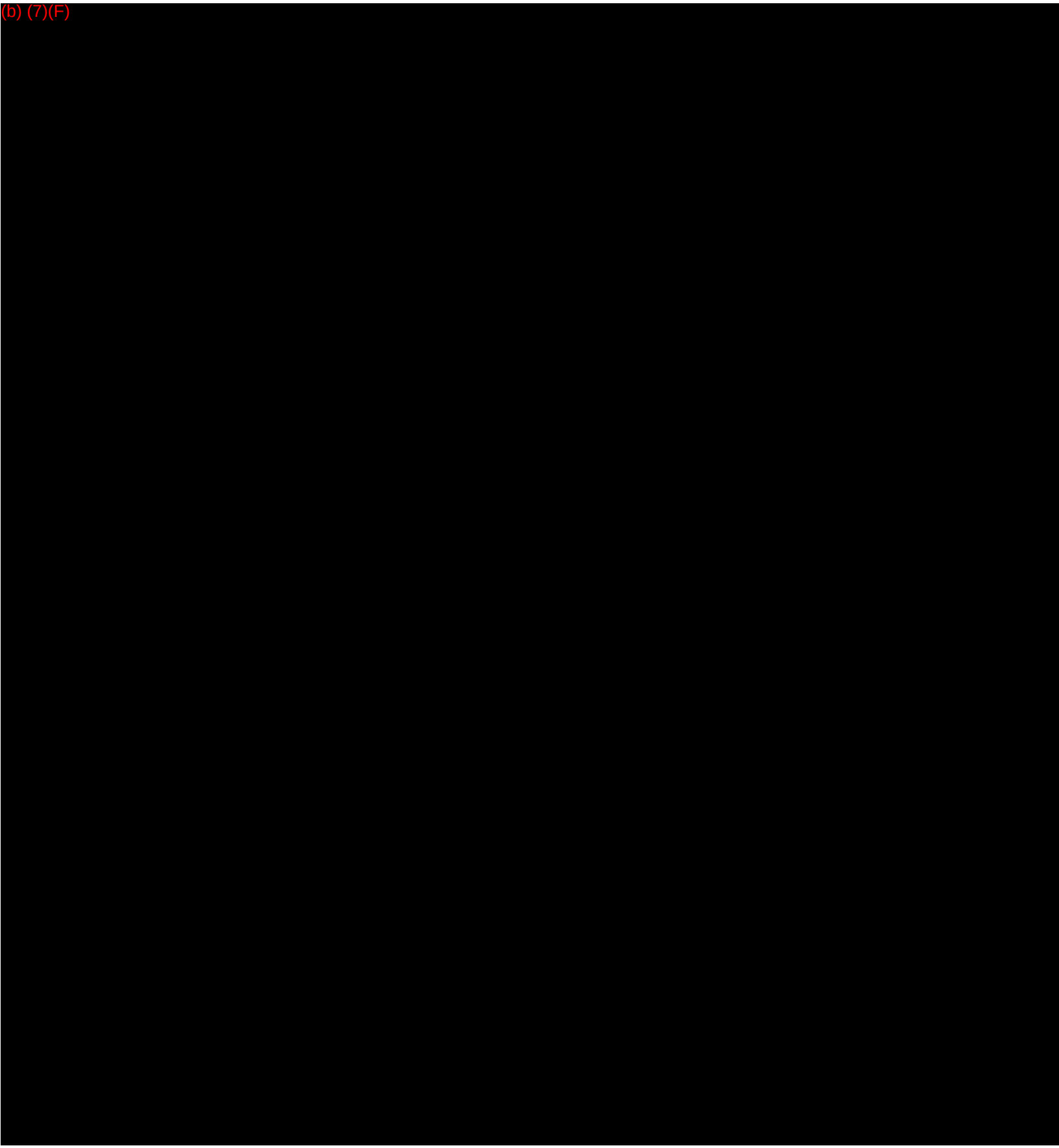
TORNADO/STRAIGHT LINE WINDS SPECIFIC RESPONSE

Warning times for tornadoes may be very short and the information not very precise. The Superintendent should notify all employees of any tornado watch or tornado warning announced by the Weather Bureau.

If a tornado is sighted:

- The Superintendent should announce the sighting over the Company Radio System and tell all employees to report immediately to the Emergency Tornado Shelters.
- All Employees should proceed immediately to the Tornado shelters.
- After the Tornado is over, the Superintendent will organize search and rescue teams if anyone is not accounted for.
- Handle any injured personnel according to the severe injury procedure outlined in the beginning of this section.
- The Superintendent will assess the situation to determine the best approach to follow in returning to normal operations.

(b) (7)(F)



MEDICAL EMERGENCY

- 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 relieved by another trained CPR personnel 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. Refer to the Company's injury procedures for additional information.

3.2 DOCUMENTATION OF INITIAL RESPONSE ACTIONS

It is difficult, particularly during the first few minutes of an initial response operation, to think about the importance of documentation. A log should be maintained that documents the history of the events and communications that occur during the response. When recording this information, it is important to remember that the log may become instrumental in legal proceedings, therefore:

- Record only facts, do not speculate.
- Do not criticize the efforts and/or methods of other people/operations.
- Do not speculate on the cause of the spill.
- Do not skip lines between entries or make erasures. If an error is made, draw a line through it, add the correct entry above or below it, and initial the change.
- Record the recommendations, instructions, and actions taken by government/regulatory officials.
- Document conversations (telephone or in person) with government/regulatory officials.
- **Request that government/regulatory officials document and sign their recommendations or orders (especially if company personnel do not agree with the suggestions, instructions, or actions).**

3.3 OIL CONTAINMENT, RECOVERY AND DISPOSAL/WASTE MANAGEMENT

The disposal of recovered oil and oily debris poses potential immediate and long term problems; therefore, every effort should be made to reclaim as much of the recovered oil as possible. All contaminated material will be disposed of in accordance with all applicable state, federal and local regulations. The Environmental, Health and Safety (EHS) - Remediation Department must be consulted to ensure compliance with these regulations.

Recovered oil, oily liquids, gasoline or diesel contaminated soil, and other cleanup debris such as concrete, wood, oily rags, spill booms and sorbent materials will be collected, temporarily stored and eventually disposed of off-site. The disposal method will be determined by testing the wastes for ignitability, corrosivity, reactivity, and toxicity characteristics. Other tests required by recycling/disposal facilities will be conducted as required. Crude oil contaminated soil may be bio-remediated at one of the Kinder Morgan facilities on a Railroad Commission of Texas approved remediation pad.

Waste containing any kind of oil is considered hazardous unless it can be shown to be nonhazardous by a certified laboratory analysis. To be classified as non-hazardous, the waste must be certified not to possess any of the following characteristics: ignitability, corrosivity, reactivity or toxicity. Laboratory analysis will be required by any disposal facility before they will accept oily waste for disposal. Kinder Morgan has ongoing contracts with various laboratories. Analytical methods that are commonly used are:

- Benzene SW-846-8020
- Toluene SW-846-8020
- Ethyl benzene SW-846-8020
- Xylene SW-846-8020

- Total Petroleum Hydrocarbons 418.113550

Total Metals;

- Arsenic SW-846-7060
- Cadmium SW-846-7130
- Chromium SW-846-7191
- Lead SW-846-7420

Hazardous Waste Characteristics;

- Ignitability SW-846-1010
- Corrosivity SW-846-1110
- Cyanide SW-846-7.3.3.2
- Reactivity Sulfide SW-846-7.3.4.2
- TCLP Volatiles SW-846-8260

As directed by the EHS - Remediation Department, materials deemed non-recyclable will be:

1. Sold to a commercial recycler, or
2. Disposed of off-site.

Kinder Morgan has existing disposal contracts for Class I, II, and III non-hazardous materials and for hazardous materials. Kinder Morgan also has contracts for the incineration of hazardous materials. The EHS - Remediation Department will coordinate; labeling, placarding, manifesting and permitting requirements for waste shipments offsite.

FIGURE 3.2

PRODUCT SPECIFIC RESPONSE CONSIDERATIONS

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)	
The following information provides the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.	
HEALTH	
GUIDE NO. 128	• Inhalation or contact with material may irritate or burn skin and eyes. • Fire may produce irritating, corrosive and/or toxic gases. • Vapors may cause dizziness or suffocation. • Runoff from fire control or dilution water may cause pollution.
FIRST AID	
• Move victim to fresh air. • Call 911 or emergency medical service. • Give 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. • In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin. • Keep victim warm and quiet. • Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. • Ensure medical personnel are aware of materials involved and take precautions to protect themselves.	
PUBLIC SAFETY	
• **CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.** • 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.	

3.4 STORAGE/DISPOSAL

Strict rules designed to ensure safe and secure handling of waste materials govern the Company waste disposal activities. To ensure proper disposal of recovered oil and associated debris, the following guidelines should be considered:

- In the event of a product spill, the Facility has limited capacity to store recovered product and water. Separated product is pumped to trucks to be carried to a facility for processing.
- Oily debris will be segregated on site and containerized for temporary storage prior to disposal in accordance with RCRA/CERCLA regulations.
- Transportation of waste material will be performed in accordance with all applicable federal and state guidelines.
- Waste associated with the spill will be disposed of at Company pre-approved sites which have the necessary permits to accept the type of waste to be discharged.

The Company's EHS Manager will coordinate activities and secure the necessary permits to ensure proper disposal or recycling of recovered product and debris.

3.5 SAMPLING AND WASTE ANALYSIS PROCEDURE

The Company's sampling and waste analysis practices are governed by the regulations for the applicable state and the United States Environmental Protection Agency (EPA). These regulations outline methods and procedures for determining the chemical and physical characteristics of wastes generated by the Facility, including waste associated with spills, so that they may be properly stored, treated, or disposed.

3.6 SAFETY AWARENESS

It is the corporate policy of the Company to provide a safe workplace for all workers. All employees and contractors are responsible for maintaining the safety and health of all workers at the Facility and the response operations.

Prior to engaging in **any** spill response activity:

- All employees/contractors must have received orientation from the Company Safety Plan.
- All contractor response personnel must be in compliance with OSHA training requirements.
- All other personnel will have completed appropriate training for their position as outlined in Section 4.0.
- No employee/contractor shall engage in activities which place them at risk without the appropriate protective equipment and training.

General Response Safety

All company and contractor personnel are expected to comply with the Site Safety and Health Plan for each spill incident.

- Any concern regarding health or safety issues should be immediately addressed.
- The First Responder must consider the spill site as dangerous and the local atmosphere explosive until air monitoring procedures prove that the area is safe.
- The First Responder must exit the area against or across the wind if possible and must also evacuate others who are working in the area.
- All injuries, no matter how minor, must be reported to the Facility Management in a timely manner.
- Prior to entering a spill area, a qualified person must perform an initial safety and health evaluation of the site.

Air Monitoring

A Safety Monitor shall be designated who is trained in the operation of air monitoring equipment. The Incident Commander must ensure that Safety Monitors are trained and that their equipment is maintained and ready for use.

- The air monitoring equipment shall be activated and checked at the location in which it is stored.
- Air monitoring measurements which are to be made prior to entry into the spill area include:
  - Lower Explosive Limit (LEL)
  - Oxygen content
- LEL readings above 10% require immediate evacuation of the area and elimination of ignition sources.
- Oxygen readings below 19.5% require the use of air supplied respiratory protection.
- The Incident Commander is responsible for industrial hygiene monitoring in the post discovery period.

Decontamination

Through training programs, personnel know and understand the importance of the removal of hazardous substances from their person if they are contaminated. Eyewash stations and safety showers provide a means to quickly remove gross contamination of harmful agents, including gasoline. Personnel must immediately shower and remove any clothing which is wet or otherwise contaminated. Showers in the change room are to be used for thorough cleansing. Persons should inspect themselves thoroughly before donning a fresh change of clothing.

Contaminated clothing should be disposed of properly. Contaminated personal protective equipment must be washed and sanitized before re-using. The washing of contaminated equipment is performed in a "contained area" to assure that the disposal of the wash water can be handled properly.

Establishing "Exclusion - Hot", "Decontamination - Decon", and "Support - Safe" zones are required to prevent the removal of contaminants from the contaminated area as well as unauthorized entry into contaminated areas.

- Regardless of the decontamination facilities available, all efforts to minimize personnel exposure should be taken.

- Decontamination facilities should be positioned prior to employee/ contractor entrance to areas where the potential for exposure to contamination exists. The appropriate Material Safety Data Sheets (MSDS) are available to aid health professionals treating the injured parties. MSDS are separately maintained at the nearest Facility.
- Decontamination facilities should be designed to prevent further contamination of the environment and should have a temporary storage area for items that will be reused in the contaminated area.
- Particular attention should be paid to personal hygiene prior to eating, drinking, or smoking.

Personal Protective Equipment (PPE)

The following represents OSHA/USEPA 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)	
LEVEL A • Self Contained Breathing Apparatus (SCBA) (worn inside suit) • Encapsulated Chemical Protective Suit • Chemical Protective Gloves • Chemical Protective Boots • Hard Hat • Safety Toe Footwear • Safety Glasses	To be selected when the greatest level of skin, respiratory, and eye protection is required.
LEVEL B • SCBA (worn outside suit) • Chemical Protective Suit w/Hood • Chemical Protective Boots • Chemical Protective Gloves • Hard Hat • Safety Toe Footwear • Safety Glasses	To be selected when the highest level of respiratory protection is necessary but a lesser level of skin protection is needed.
LEVEL C • Air Purifying Respirator (APR) • APR a½ Face or Full Face • Hard Hat • Glasses (worn with a½ face APR) • Chemical Protective Boots • Chemical Protective Gloves • Chemical Protective Suit/Tyvek • Safety Toe Footwear • Safety Glasses	To be selected when the concentration and type of airborne substances is known and the criteria for using air purifying respirators are met.
MODIFIED LEVEL C Same as level C except no APR requirements.	To be selected when the concentration and type of airborne substances is known and the levels are below the criteria for using air purifying respirators.
LEVEL D • Hard Hat • Safety Glasses • Work Uniform / Clothes • Leather Gloves • Safety Boots • Nomex (if required by the Company)	The atmosphere contains no known hazard and work functions preclude the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

3.7 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.
- 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.
- 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

This section describes organizational features and duties of the Local Response Team and the broader Company Crisis Support Team.

The key to an effective emergency response is a rapid, coordinated, tiered response by the affected facility, and the Crisis Support Team, consistent with the magnitude of an incident.

First response to an incident at the Facility will be provided by the Local Response Team (LRT). The Crisis Support Team will respond, to the degree necessary, to incidents exceeding local capability. If a response exceeds the Local Response Team's capabilities, the Local Incident Commander will activate the Crisis Support Team.

These response teams will use the NIMS Incident Command System (ICS) to manage the emergency response activities. Because ICS is a management tool that is readily adaptable to incidents of varying magnitude, it will typically be used for all emergency incidents. Staffing levels will be adjusted to meet specific response team needs based on incident size, severity, and type of emergency.

An explanation of ICS and the roles and responsibilities for primary members of the response teams are provided in Section 4.7. The USCG Incident Management Handbook (IMH) contains an in-depth description of all ICS positions, ICS development, response objectives and strategies, command responsibilities, ICS specific glossary/acronyms, resource typing, the IAP process, and meetings.

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 first Company person on scene will function as the Incident Commander and person-in-

charge until relieved by an authorized supervisor who will then assume the position of Incident Commander (IC). Transfer of command will take place as more qualified management respond to the incident.

The number of positions/personnel required to staff the Local Response Team 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 4.1. The LRT should try to fill the necessary positions and request additional support from the Crisis Support Team to fill/back up all the positions as the incident may dictate. Detailed job descriptions of the primary response team positions are provided in Section 4.7.

4.4 CRISIS SUPPORT TEAM

For spill response operations outside the capabilities of the Local Response Team (LRT), the QI/AQI or IC will determine the need for mobilization of the Crisis Support Team (CST). The members of the LRT will typically become members of the CST.

The Crisis Support Team (CST), 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 CST will depend on the size and complexity of the incident. During a prolonged response, additional personnel may be cascaded in, and more than one level within the Team may be involved to sustain 24-hour operations.

The CST is basically organized according to the NIMS Incident Command System principles (Figure 4.1). Led by the Incident Commander, the team is composed of the following principal components:

- Command
- Operations
- Planning
- Logistics
- Finance

The Crisis Support Team is staffed by specially trained personnel from various facility/corporate locations, and by various contract resources as the situation requires. (Telephone reference is provided in Figure 2.2.) Command and Unit Leader responsibilities are described in Section 4.7.

4.5 INCIDENT COMMAND SYSTEM (ICS)

The Incident Command System is intended to be used as an emergency 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 utilizes the following criteria as key operational factors:

- Assigns overall authority to one individual
- Provides structured authority, roles and responsibilities during emergencies

- The system is simple and familiar, and is used routinely at a variety of incidents
- Communications are structured
- There is a structured system for response and assignment of resources
- The system provides for expansion, escalation, and transfer/transition of roles and responsibilities
- The system allows for "Unified Command" where agency involvement at the command level is required

Effective establishment and utilization of the Incident Command System 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, Federal, and public sector emergency response personnel
- Provide a solid cornerstone for emergency planning efforts

Section 4.7 provides a comprehensive list of every response team member's duty assignment.

4.6 UNIFIED COMMAND

As a component of an Incident Command System, 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 links the organizations responding to the incident and provides a forum for the Responsible Party and responding agencies to make consensus decisions. Under the Unified Command, the various jurisdictions and/or agencies and responders may blend together throughout the organization to create an integrated response team. The Incident Command System process requires the Unified Command to set clear objectives to guide the on-scene response resources.

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

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

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

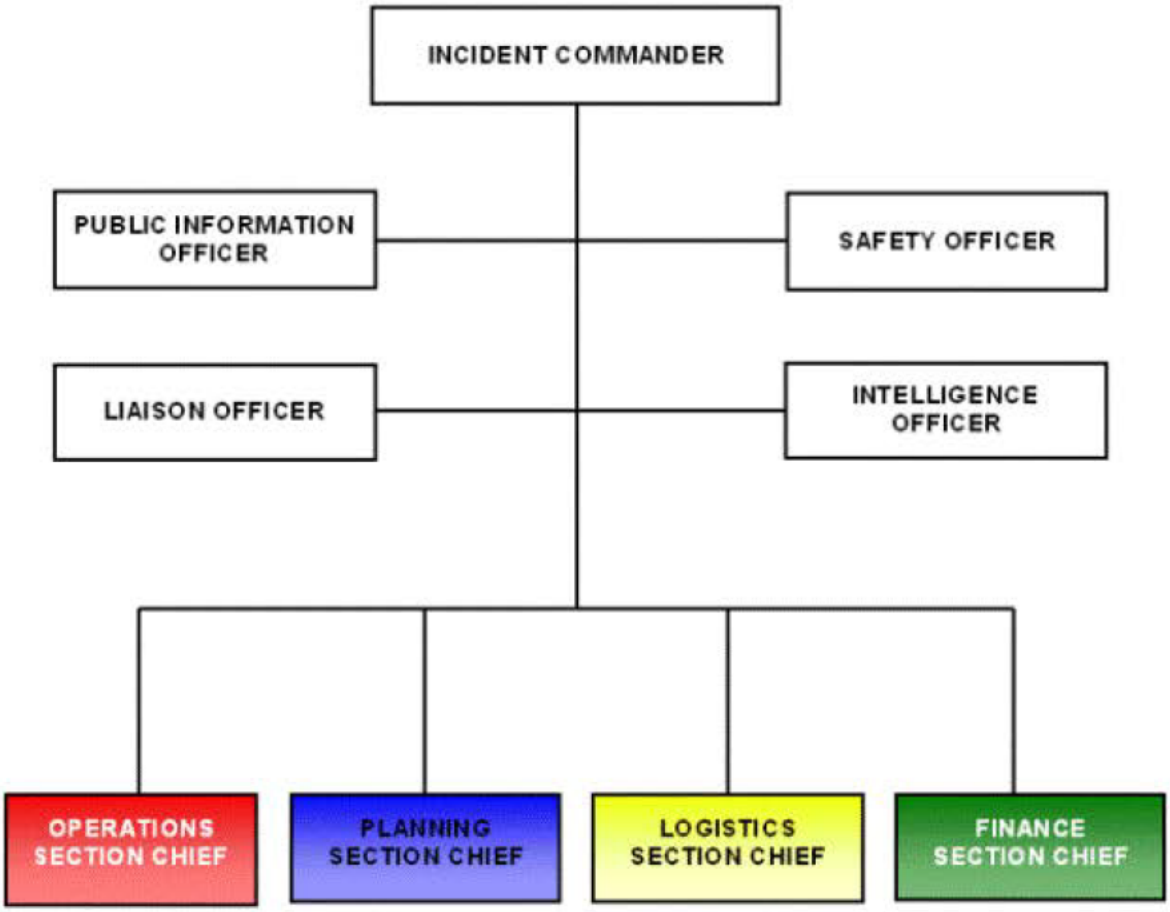
The Unified Command is responsible for overall management of an incident. The Unified Command directs incident activities and approves and releases resources. The Unified Command structure is a vehicle for coordination, cooperation and communication which is essential to an effective response.

Unified Command representatives must be able to:

- Agree on common incident objectives and priorities
- Have the capability to sustain a 24-hour-7-day-per-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 Public Information Officer or Joint Information Center
- Agree on logistical support procedures
- Agree on cost-sharing procedures

FIGURE 4.1

INCIDENT COMMAND SYSTEM



4.7 ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

The following is a checklist applicable to all personnel in an Incident Command System organization:

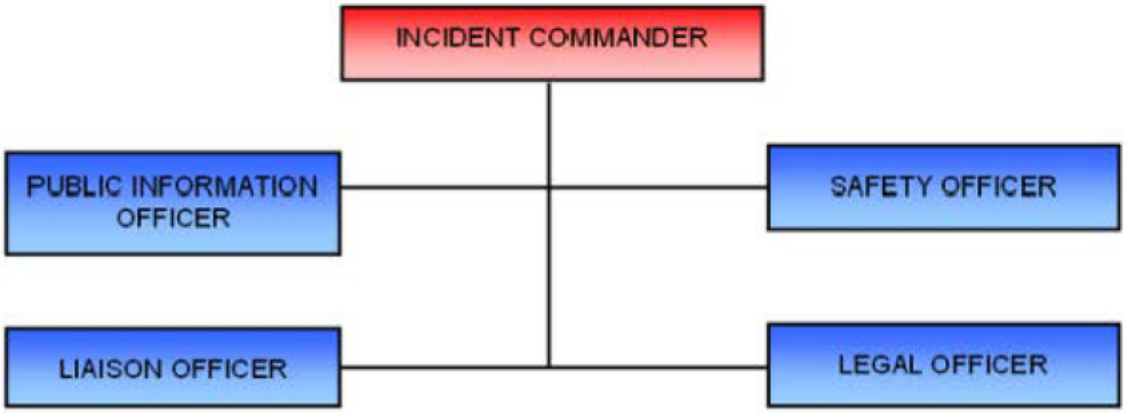
- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.
- 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 Incident Command System 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 Log (ICS Form 214).
- Respond to demobilization orders and brief subordinates regarding demobilization.

UNIT LEADER RESPONSIBILITIES

In Incident Command System, 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 Log (ICS Form 214).

COMMAND



INCIDENT COMMANDER

- Assess the situation and/or obtain a briefing from the prior Incident Commander.
- Determine Incident Objectives and strategy.
- Establish the immediate priorities.
- Establish an Incident Command Post.
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required. (Refer to Figure 4.2 "Operational Period Planning Cycle" for assistance).
- Approve and authorize the implementation of an Incident Action Plan.
- 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 agency administrator 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-CG) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.
- Assign any of the Incident Commander roles and responsibilities to a Deputy Incident Commander as needed.

PUBLIC INFORMATION OFFICER

- Determine from the Incident Commander if there are any limits on information release.
- Develop material for use in media briefings.
- Obtain Incident Commander 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 Restoration (NRDAR) activities with the Operations during oil and HAZMAT responses.
- Coordinate response resource needs for incident investigation activities with the Operations.
- Ensure that all required agency forms, reports and documents are completed prior to demobilization.
- Coordinate activities of visiting dignitaries.

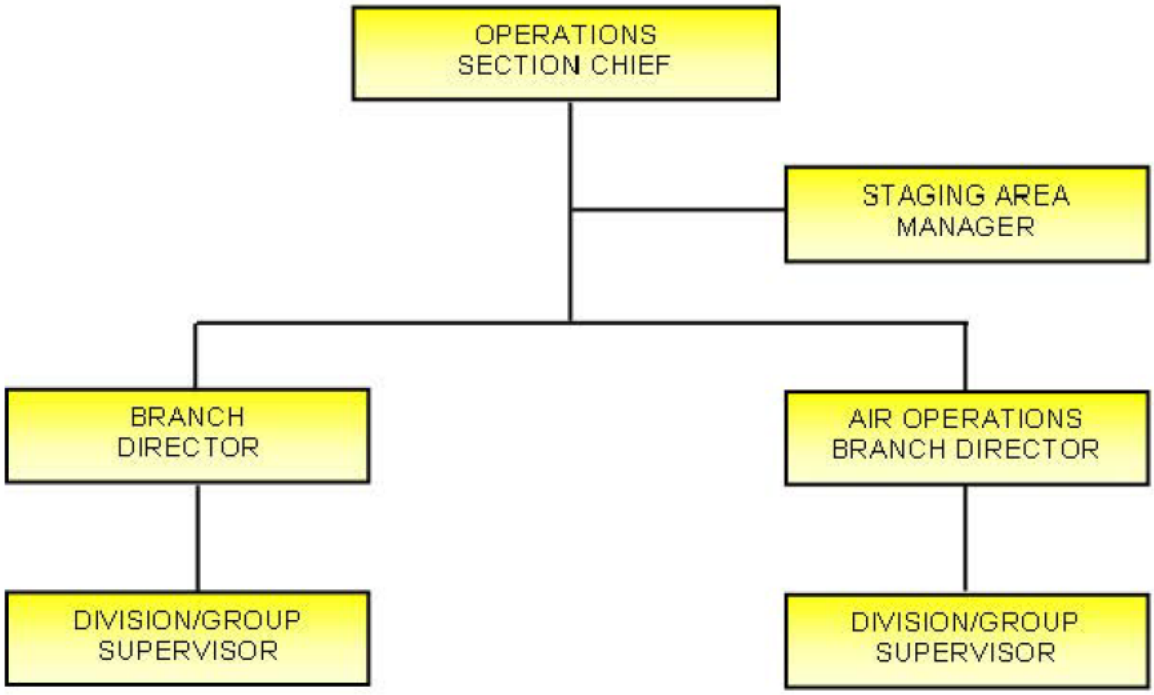
SAFETY OFFICER

- Participate in planning meetings.
- Identify hazardous situations associated with the incident.
- Review the Incident Action Plan for safety implications.
- Exercise emergency authority to stop and prevent unsafe acts.
- Investigate accidents that have occurred within the incident area.
- Review and approve the medical plan.
- Develop the Site Safety Plan and publish Site Safety Plan summary (ICS Form 208) 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 Natural Resource Damage Assessment Restoration (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



OPERATIONS SECTION GENERAL FUNCTIONS

- Responsible for managing tactical operations at the incident site directed toward reducing the immediate hazard, saving lives and property, establishing situational control, and restoring normal operations.
- Directs and coordinates all incident tactical operations.
- Executes the Incident Action Plan.

OPERATIONS SECTION CHIEF

- Develop operations portion of Incident Action Plan.
- Brief and assign Operations Section personnel in accordance with the Incident Action Plan.
- Supervise Operations Section.
- Determine need 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 Incident Commander.
- Respond to resource requests in support of National Resource Damage Assessment and Restoration activities.

BRANCH DIRECTOR

- Develop with subordinates alternatives for Branch control operations.
- Attend planning meetings at the request of the Operations.
- Review Assignment List (ICS Form 204-CG) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
- Assign specific work tasks to Division/Group Supervisors.
- Supervise Branch operations.
- Resolve logistic problems reported by subordinates.
- Report to Operations when: the Incident Action Plan is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- Approve accident and medical reports originating within the Branch.

DIVISION/GROUP SUPERVISOR

- Implement Incident Action Plan for Division/Group.
- Provide the Incident Action Plan to Strike Team Leaders, when available.
- Identify increments assigned to the Division/Group.
- Review Division/Group assignments and incident activities with subordinates and assign tasks.
- Ensure that the Incident Commander and/or Resources Unit is advised of all changes in the status of resources assigned to the Division/Group.
- Coordinate activities with adjacent Division/Group.
- Determine need for assistance on assigned tasks.
- Submit situation and resources status information to the Branch Director or the Operations.
- Report hazardous situations, special occurrences, or significant events (e.g., accidents, sickness, discovery of unanticipated sensitive resources) to the immediate supervisor.
- Ensure that assigned personnel and equipment get to and from assignments in a timely and orderly manner.
- Resolve logistics problems within the Division/Group.
- Participate in the development of Branch plans for the next operational period.

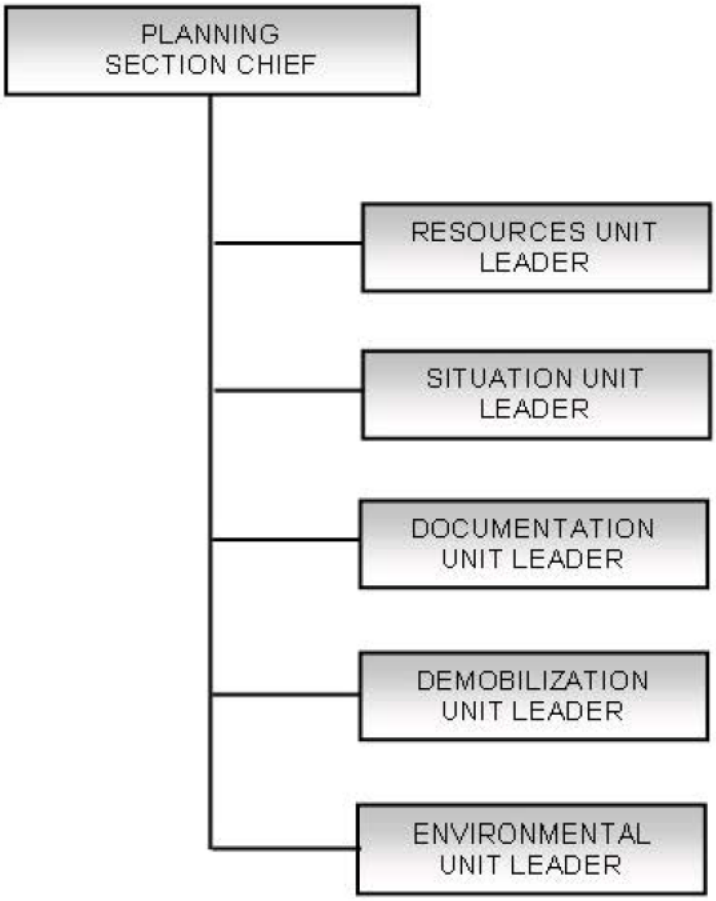
STAGING AREA MANAGER

- Establish Staging Area layout.
- Determine any support needs for equipment, feeding, sanitation and security.
- Establish check-in function as appropriate.
- Post areas for identification and traffic control.
- Request maintenance service for equipment at Staging Area as appropriate.
- Respond to request for resource assignments.
- Obtain and issue receipts for radio equipment and other supplies distributed and received at Staging Area.
- Determine required resource levels from the Operations.
- Advise the Operations when reserve levels reach minimums.
- Maintain and provide status to Resource Unit of all resources in Staging Area.
- Demobilize Staging Area in accordance with the Incident Demobilization Plan.

AIR OPERATIONS BRANCH DIRECTOR

- Organize preliminary air operations.
- Request declaration (or cancellation) of restricted air space
- Participate in preparation of the Incident Action Plan through the Operations. Insure that the air operations portion of the Incident Action Plan takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.
- Prepare and provide Air Operations Summary (ICS Form 220) to the Air Support Group and Fixed-Wing Bases.
- Determine coordination procedures for use by air organization with ground Branches, Divisions, or Groups.
- Coordinate with appropriate Operations Section personnel.
- Supervise all air operations activities associated with the incident.
- Evaluate helibase locations.
- Establish procedures for emergency reassignment of aircraft.
- Schedule approved flights of non-incident aircraft in the restricted air space area.
- Coordinate with the Operations Coordination Center (OCC) through normal channels on incident air operations activities.
- Inform the Air Tactical Group Supervisor of the air traffic situation external to the incident.
- Consider requests for non-tactical use of incident aircraft.
- Resolve conflicts concerning non-incident aircraft.
- Coordinate with Federal Aviation Administration.
- Update air operations plans.
- Report to the Operations on air operations activities.
- Report special incidents/accidents.
- Arrange for an accident investigation team when warranted.

PLANNING



PLANNING SECTION GENERAL FUNCTIONS

- Responsible for gathering, evaluating, and disseminating tactical information and intelligence critical to the incident.
- Maintaining incident documentation and providing documentation services.
- Preparing and documenting Incident Action Plans.
- Conducting long-range and/or contingency planning.
- Developing alternative strategies.
- Tracking resources assigned to the incident.
- Developing plans for waste disposal.
- Developing plans for demobilization.

PLANNING SECTION CHIEF

- Collect and process situation information about the incident.
- Supervise preparation of the Incident Action Plan.
- Provide input to the Incident Commander and the Operations in preparing the Incident Action Plan.
- Chair planning meetings and participate in other meetings as required. (Refer to Figure 4.2 "Operational Period Planning Cycle" for assistance.
- Reassign out-of-service personnel already on-site to Incident Command System 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 Incident Action Plan.

RESOURCES UNIT LEADER

- Establish the check-in function at incident locations.
- Prepare Organization Assignment List (ICS Form 203-CG) and Incident Organization (ICS Form 207-CG).
- Prepare appropriate parts of Assignment List (ICS Form 204).
- Prepare and maintain the Incident Command Post display (to include organization chart and resource allocation and deployment).
- Maintain and post the current status and location of all resources.
- Maintain master roster of all resources checked in at the incident.

SITUATION UNIT LEADER

- Begin collection and analysis of incident data as soon as possible.
- Prepare, post, or disseminate resource and situation status information as required, including special requests.
- Prepare periodic predictions or as requested by the Planning Section Chief.
- Prepare the Incident Status Summary (ICS Form 209-CG).
- Provide photographic services and maps if required.

DOCUMENTATION UNIT LEADER

- Set up work area; begin organization of incident files.
- Establish duplication service; respond to requests.
- File all official forms and reports.
- Review records for accuracy and completeness; inform appropriate units of errors or omissions.
- Provide incident documentation as requested.
- Store files for post-incident use.

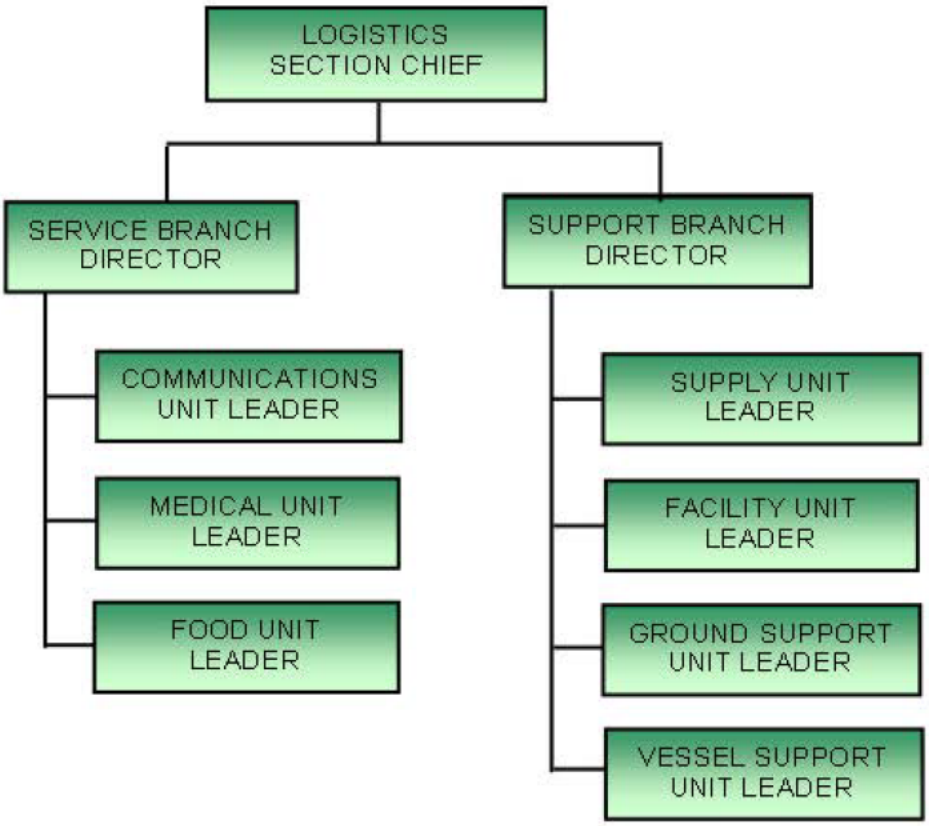
DEMOBILIZATION UNIT LEADER

- Participate in planning meetings as required.
- Review incident resource records to determine the likely size and extent of demobilization effort.
- Based on the above analysis, add additional personnel, workspace, and supplies as needed.
- Coordinate demobilization with Agency Representatives.
- Monitor the on-going Operations Section resource needs.
- Identify surplus resources and probable release time.
- Develop incident check-out function for all units.
- Evaluate logistics and transportation capabilities to support demobilization.
- Establish communications with off-incident facilities, as necessary.
- Develop an Incident Demobilization Plan detailing specific responsibilities and release priorities and procedures.
- Prepare appropriate directories (e.g., maps, instructions, etc.) for inclusion in the demobilization plan.
- Distribute demobilization plan (on and off-site).
- Provide status reports to appropriate requestors.
- Ensure that all Sections/Units understand their specific demobilization responsibilities.
- Supervise execution of the Incident Demobilization Plan.
- Brief the Planning Section Chief on demobilization progress.

ENVIRONMENTAL UNIT LEADER

- Participate in Planning Section meetings.
- Identify sensitive areas and recommend response priorities.
- Following consultation with natural resource trustees, provide input on wildlife protection strategies (e.g., removing oiled carcasses, pre-emptive capture, hazing, and/or capture and treatment).
- Determine the extent, fate and effects of contamination.
- Acquire, distribute and provide analysis of weather forecasts.
- Monitor the environmental consequences of cleanup actions.
- Develop shoreline cleanup and assessment plans. Identify the need for, and prepare any special advisories or orders.
- Identify the need for, and obtain, permits, consultations, and other authorizations including Endangered Species Act (ESA) provisions.
- Following consultation with the Federal OnScene Coordinator's Historical/Cultural Resources Technical Specialist identify and develop plans for protection of affected historical/cultural resources.
- Evaluate the opportunities to use various response technologies.
- Develop disposal plans.
- Develop a plan for collecting, transporting, and analyzing samples.

LOGISTICS



LOGISTICS SECTION GENERAL FUNCTIONS

- Responsible for all support requirements needed to facilitate effective and efficient incident management, including ordering resources from off-incident locations.
- Ordering, obtaining, maintaining, and accounting for essential personnel, equipment, and supplies.
- Providing communication planning and resources.
- Setting up food services.
- Setting up and maintaining incident facilities.
- Providing support transportation.
- Providing medical services to incident personnel.

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 Incident Action Plan.
- 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 Incident Action Plan and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the Incident Action Plan.
- 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.

SERVICE BRANCH DIRECTOR

- Determine the level of service required to support operations.
- Confirm dispatch of Branch personnel.
- Participate in planning meetings of Logistics Section personnel.
- Review the Incident Action Plan.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the Loigistic Section Chief of Branch activities.
- Resolve Service Branch problems.

COMMUNICATIONS UNIT LEADER

- Prepare and implement the Incident Radio Communications Plan (ICS Form 205-CG).
- Ensure the Incident Communications Center and the Message Center is established.
- Establish appropriate communications distribution/maintenance locations within the Base/Camp(s).
- Ensure communications systems are installed and tested.
- Ensure an equipment accountability system is established.
- Ensure personal portable radio equipment from cache is distributed per Incident Radio Communications Plan.
- Provide technical information as required on:
    - Adequacy of communications systems currently in operation.
    - Geographic limitation on communications systems.
    - Equipment capabilities/limitations.
    - Amount and types of equipment available.
    - Anticipated problems in the use of communications equipment.
- Supervise Communications Unit activities.
- Maintain records on all communications equipment as appropriate.
- Ensure equipment is tested and repaired.
- Recover equipment from Units being demobilized.

MEDICAL UNIT LEADER

- Participate in Logistics Section/Service Branch planning activities.
- Prepare the Medical Plan (ICS Form 206-CG).
- Prepare procedures for major medical emergency.
- Declare major emergency as appropriate.
- Respond to requests for medical aid, medical transportation, and medical supplies.
- Prepare and submit necessary documentation.

FOOD UNIT LEADER

- Determine food and water requirements.
- Determine the method of feeding to best fit each facility or situation.
- Obtain necessary equipment and supplies and establish cooking facilities.
- Ensure that well-balanced menus are provided.
- Order sufficient food and potable water from the Supply Unit.
- Maintain an inventory of food and water.
- Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
- Supervise caterers, cooks, and other Food Unit personnel as appropriate.

SUPPORT BRANCH DIRECTOR

- Determine initial support operations in coordination with the Loigistic Section Chief and Service Branch Director.
- Prepare initial organization and assignments for support operations.
- Assemble and brief Support Branch personnel.
- Determine if assigned Branch resources are sufficient.
- Maintain surveillance of assigned units work progress and inform the Loigistic Section Chief of their activities.
- Resolve problems associated with requests from the Operations Section.

SUPPLY UNIT LEADER

- Participate in Logistics Section/Support Branch planning activities.
- Determine the type and amount of supplies en route.
- Review the Incident Action Plan for information on operations of the Supply Unit.
- Develop and implement safety and security requirements.
- Order, receive, distribute, and store supplies and equipment.
- Receive and respond to requests for personnel, supplies, and equipment.
- Maintain an inventory of supplies and equipment.
- Service reusable equipment.
- Submit reports to the Support Branch Director.

FACILITY UNIT LEADER

- Review the Incident Action Plan.
- Participate in Logistics Section/Support Branch planning activities.
- Determine requirements for each facility, including the Incident Command Post.
- Prepare layouts of incident facilities.
- Notify Unit Leaders of facility layout.
- Activate incident facilities.
- Provide Base and Camp Managers and personnel to operate facilities.
- Provide sleeping facilities.
- Provide security services.
- Provide facility maintenance services (e.g., sanitation, lighting, clean up).
- Demobilize Base and Camp facilities.
- Maintain facility records.

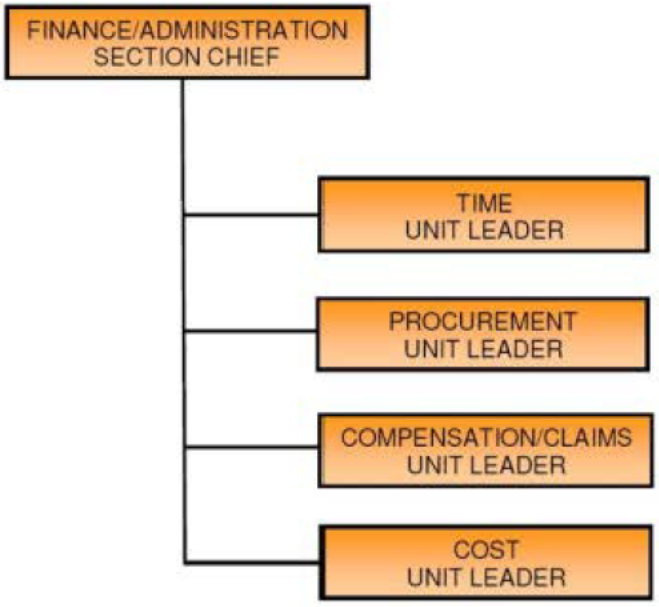
GROUND SUPPORT UNIT LEADER

- Participate in Support Branch/Logistics Section planning activities.
- Develop and implement the Traffic Plan.
- Support out-of-service resources.
- Notify the Resources Unit of all status changes on support and transportation vehicles.
- Arrange for and activate fueling, maintenance, and repair of ground resources.
- Maintain Support Vehicle Inventory and transportation vehicles (ICS Form 218).
- Provide transportation services, In accoradance with requests from the Loigistic Section Chief or Support Branch Director.
- Collect information on rented equipment.
- Requisition maintenance and repair supplies (e.g., fuel, spare parts).
- Maintain incident roads.
- Submit reports to Support Branch Director as directed.

VESSEL SUPPORT UNIT LEADER

- Participate in Support Branch/Logistics Section planning activities.
- Coordinate development of the Vessel Routing Plan.
- Coordinate vessel transportation assignments with the Protection and Recovery Branch or other sources of vessel transportation.
- Coordinate water-to-land transportation with the Ground Support Unit, as necessary.
- Maintain a prioritized list of transportation requirements that need to be scheduled with the transportation source.
- Support out-of-service vessel resources, as requested.
- Arrange for fueling, dockage, maintenance and repair of vessel resources, as requested.
- Maintain inventory of support and transportation vessels.

FINANCE/ADMINISTRATION



FINANCE/ADMINISTRATION SECTION GENERAL FUNCTIONS

- Responsible for all financial and cost analysis aspects of an incident. (Note: Not all incidents will require a separate Finance/Administration Section. In cases that require only one specific function (e.g., cost analysis), this service may be provided by a member of the Planning Section.)
- Administering any contract negotiation.
- Providing cost analysis as it pertains to the Incident Action Plan.
- Maintaining cost associated with the incident.
- Tracking personnel and equipment time.
- Addressing compensation for injury or damage to property issues.

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 agency(s) 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.

TIME UNIT LEADER

- Determine incident requirements for time recording function.
- Determine resource needs.
- Contact appropriate agency personnel/representatives.
- Ensure that daily personnel time recording documents are prepared and in compliance with policy.
- Establish time unit objectives.
- Maintain separate logs for overtime hours.
- Establish commissary operation on larger or long-term incidents as needed.
- Submit cost estimate data forms to the Cost Unit, as required.
- Maintain records security.
- Ensure that all records are current and complete prior to demobilization.
- Release time reports from assisting agency personnel to the respective Agency Representatives prior to demobilization.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

PROCUREMENT UNIT LEADER

- Review incident needs and any special procedures with Unit Leaders, as needed.
- Coordinate with local jurisdiction on plans and supply sources.
- Obtain the Incident Procurement Plan.
- Prepare and authorize contracts and land-use agreements.
- Draft memoranda of understanding as necessary.
- Establish contracts and agreements with supply vendors.
- Provide for coordination between the Ordering Manager, agency dispatch, and all other procurement organizations supporting the incident.
- Ensure that a system is in place that meets agency property management requirements. Ensure proper accounting for all new property.
- Interpret contracts and agreements; resolve disputes within delegated authority.
- Coordinate with the Compensation/Claims Unit for processing claims.
- Coordinate use of impress funds, as required.
- Complete final processing of contracts and send documents for payment.
- Coordinate cost data in contracts with the Cost Unit Leader.
- Brief the Finance/Administration Section Chief on current problems and recommendations, outstanding issues, and follow-up requirements.

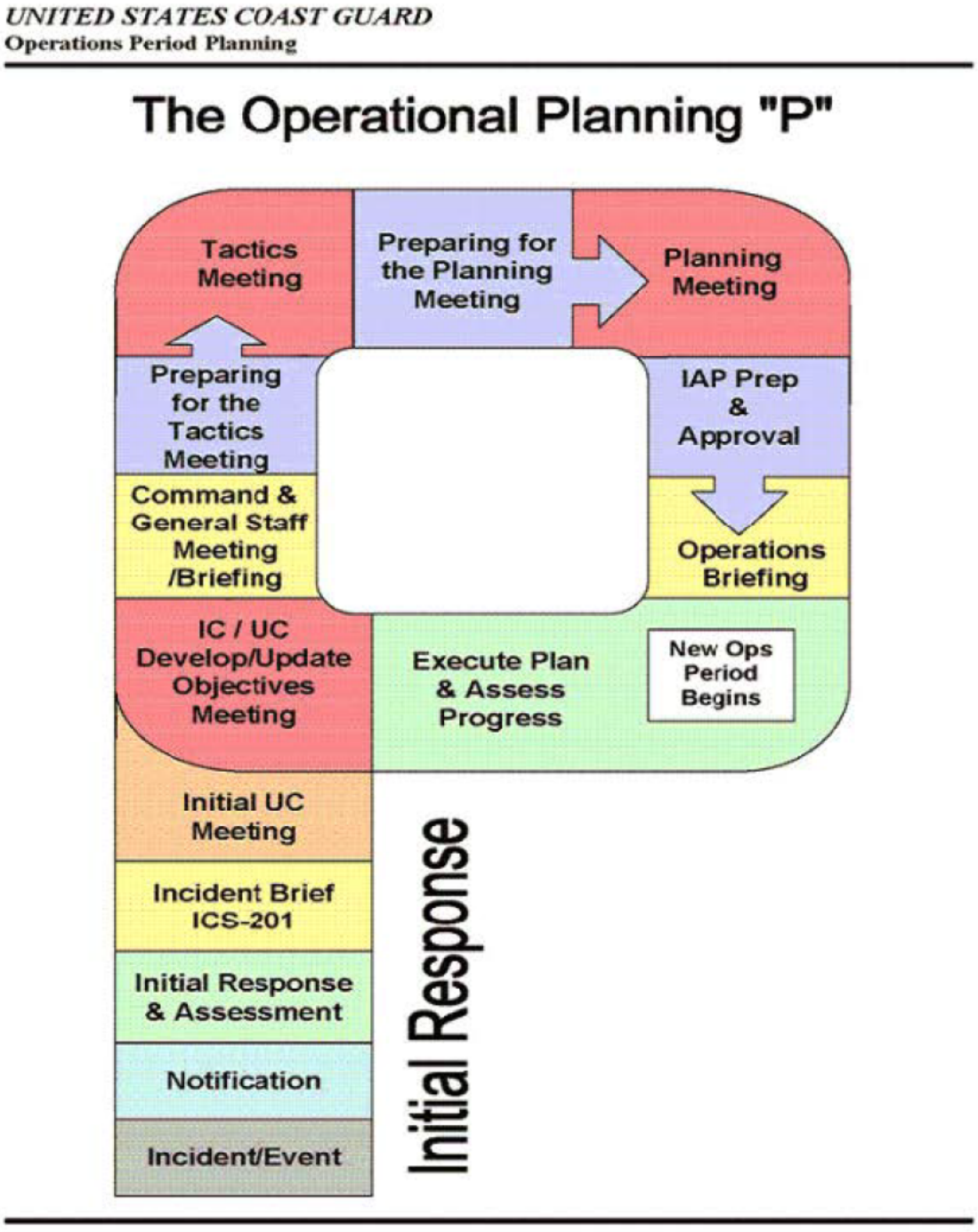
COMPENSATION/CLAIMS UNIT LEADER

- Establish contact with the incident Security Officer and Liason Officer (or Agency Representatives if no Liason Officer is assigned).
- Determine the need for Compensation for Injury and Claims Specialists and order personnel as needed.
- Establish a Compensation for Injury work area within or as close as possible to the Medical Unit.
- Review Medical Plan (ICS Form 206-CG).
- Ensure that Compensation/Claims Specialists have adequate workspace and supplies.
- Review and coordinate procedures for handling claims with the Procurement Unit.
- Brief the Compensation/Claims Specialists on incident activity.
- Periodically review logs and forms produced by the Compensation/Claims Specialists to ensure that they are complete, entries are timely and accurate and that they are in compliance with agency requirements and policies.
- Ensure that all Compensation for Injury and Claims logs and forms are complete and routed appropriately for post-incident processing prior to demobilization.
- Keep the Finance/Administration Section Chief briefed on Unit status and activity.
- Demobilize unit in accordance with the Incident Demobilization Plan.

COST UNIT LEADER

- Coordinate cost reporting procedures.
- Collect and record all cost data.
- Develop incident cost summaries.
- Prepare resources-use cost estimates for the Planning Section.
- Make cost-saving recommendations to the Finance/Administration Section Chief.
- Ensure all cost documents are accurately prepared.
- Maintain cumulative incident cost records.
- Complete all records prior to demobilization.
- Provide reports to the Finance/Administration Section Chief.

FIGURE 4.2



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 Initial Response Team. For small responses, an ICS 201 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 IAPs are generally created through the completion and compilation of several standard Incident Command System forms. These forms include, but are not limited to:

ICS FORM NUMBER	FORM TITLE	PREPARED BY
IAP Cover Sheet	ICS IAP Cover Sheet	**Planning Section** - Situation Unit Leader
201-CG	Incident Briefing	**Command Section** - Initial Response Incident Commander
202-CG	Incident Objectives	**Planning Section** - Planning Section Chief
203-CG	Organization Assignment List	**Planning Section** - Resources Unit Leader
204-CG	Assignment List	**Operations Section** - Chief & Resources Unit Leader
204a-CG	Assignment List Attachment	**Operations Section** - Chief & Resources Unit Leader
205-CG	Incident Radio Communication Plan	**Logistics Section** - Communication Unit Leader
205a-CG	Communications List	**Logistics Section** - Communication Unit Leader
206-CG	Medical Plan	**Logistics Section** - Medical Unit Leader
207-CG	Incident Organization	**Planning Section** - Resources Unit Leader
209-CG	Incident Status Summary	**Command Section** - Incident Commander
211-CG	Check-In List	
213-RR CG	Resource Request Message	
214-CG	Unit Log	**Planning Section** - Situation Unit Leader
215-CG	Operational Planning Worksheet	
215A-CG	Incident Action Plan Safety Analysis	
218	Support Vehicle Inventory	**Logi tic Section** Ground Support Unit Leader
220-CG	Air Operations Summary	**Operations Section** - Air Operations Branch Director
230-CG	Daily Meeting Schedule	
232-CG	Resources at Risk Summary	**Planning Section** - Situation Unit Leader
232a-CG	ACP Site Index	
233-CG	Incident Open Action Tracker	
234-CG	Work Analysis Matrix	
235-CG	Facility Needs Assessment Worksheet	
	Site Safety Plan	**Command Section** - Safety Officer
	Employee Certification Page	
	Media Statement	

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

- Sensitivity Maps (Provided in Section 6)
- Waste Management and 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 (SSPs) are required by United States Occupational Safety and Health Administration (29 CFR 1910.120(b)(4)) for all hazardous waste operations. The Site Safety Plan should address all on-site operations and hazardous as well as on-site emergency procedures.

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

1. Incident Name	2. Operational Period to be covered by IAP (Date/Time) From: To:	IAP COVER SHEET

3. Approved by:

FOSC _____

SOSC _____

RPIC _____

_____ _____

_____ _____

INCIDENT ACTION PLAN

The items checked below are included in this Incident Action Plan:

☐ ICS 202-OS (Response Objectives)

☐ ICS 203-OS (Organization List) – OR – ICS 207-OS (Organization Chart)

☐ ICS 204-OSs (Assignment Lists)
One Copy each of any ICS 204-OS attachments:

- ☐ Map
- ☐ Weather forecast
- ☐ Tides
- ☐ Shoreline Cleanup Assessment Team Report for location
- ☐ Previous day's progress, problems for location

☐ ICS 205-OS (Communications List)

☐ ICS 206-OS (Medical Plan)

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

4. Prepared by: Date/Time

IAP COVER SHEET June 2000

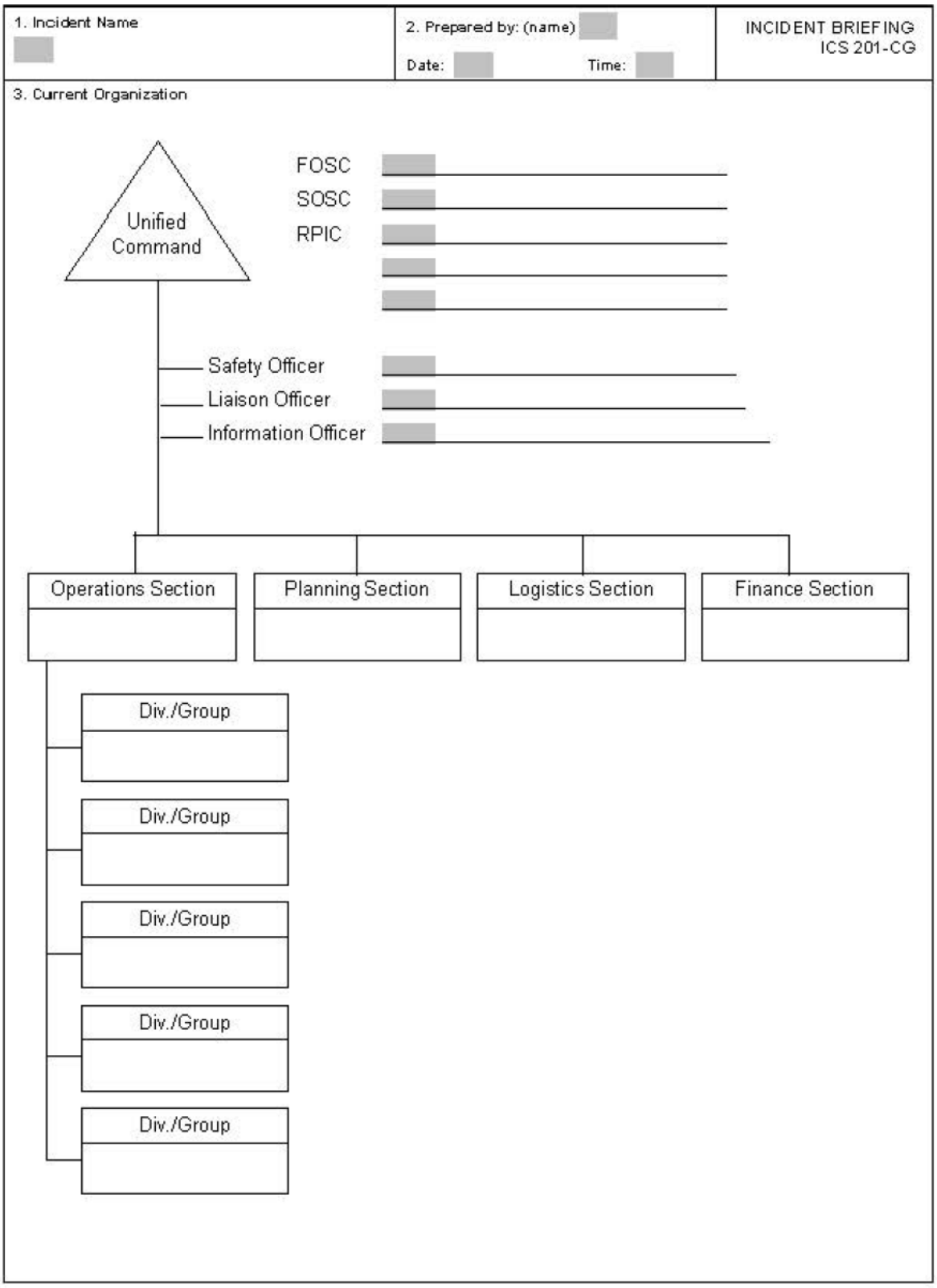
1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

3. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines, or other graphics depicting situational and response status)

4. Current Situation:

1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

5. Initial Response Objectives, Current Actions, Planned Actions



1. Incident Name	2. Prepared by: (name) Date: Time:	INCIDENT BRIEFING ICS 201-CG

7. Resources Summary Resource	Resource Identifier	Date Time Ordered	ETA	On-Scene (X)	NOTES: (Location/Assignment/Status)

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)

Approved Site Safety Plan Located at:

5. Prepared by: (Planning Section Chief) Date/Time

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

3. Incident Commander(s) and Staff		
Agency	IC	Deputy
Safety Officer:		
Information Officer:		
Liaison Officer:		

4. Agency Representatives	
Agency	Name

5. PLANNING/INTEL SECTION	
Chief	
Deputy	
Resources Unit	
Situation Unit	
Environmental Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION	
Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Vessel Support Unit	
Ground Support Unit	
b. Service Branch	
Director	
Communications Unit	
Medical Unit	
Food Unit	

7. OPERATION SECTION		
Chief		
Deputy		
Deputy		
Staging Area Manager		
Staging Area Manager		
Staging Area Manager		
a. Branch – Division Groups		
Branch Director		
Deputy		
Division Group		
Division Group		
Division Group		
Division/Group		
Division/Group		
b. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c. Branch – Division/Groups		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Air Operations Br. Dir		
Helicopter Coordinator		

8. FINANCE/ADMINISTRATION SECTION	
Chief	
Deputy	
Time Unit	
Procurement Unit	
Compensation/Claims Unit	
Cost Unit	

9. Prepared By: (Resources Unit)	Date/Time

NRC Incident No. #_____

1. Incident Name	2. Operational Period (Date / Time) From: To:	MEDICAL PLAN ICS 206-CG

3. Medical Aid Stations

Name	Location	Contact #	Paramedics On site (Y/N)

4. Transportation

Ambulance Service	Address	Contact #	Paramedics On board (Y/N)

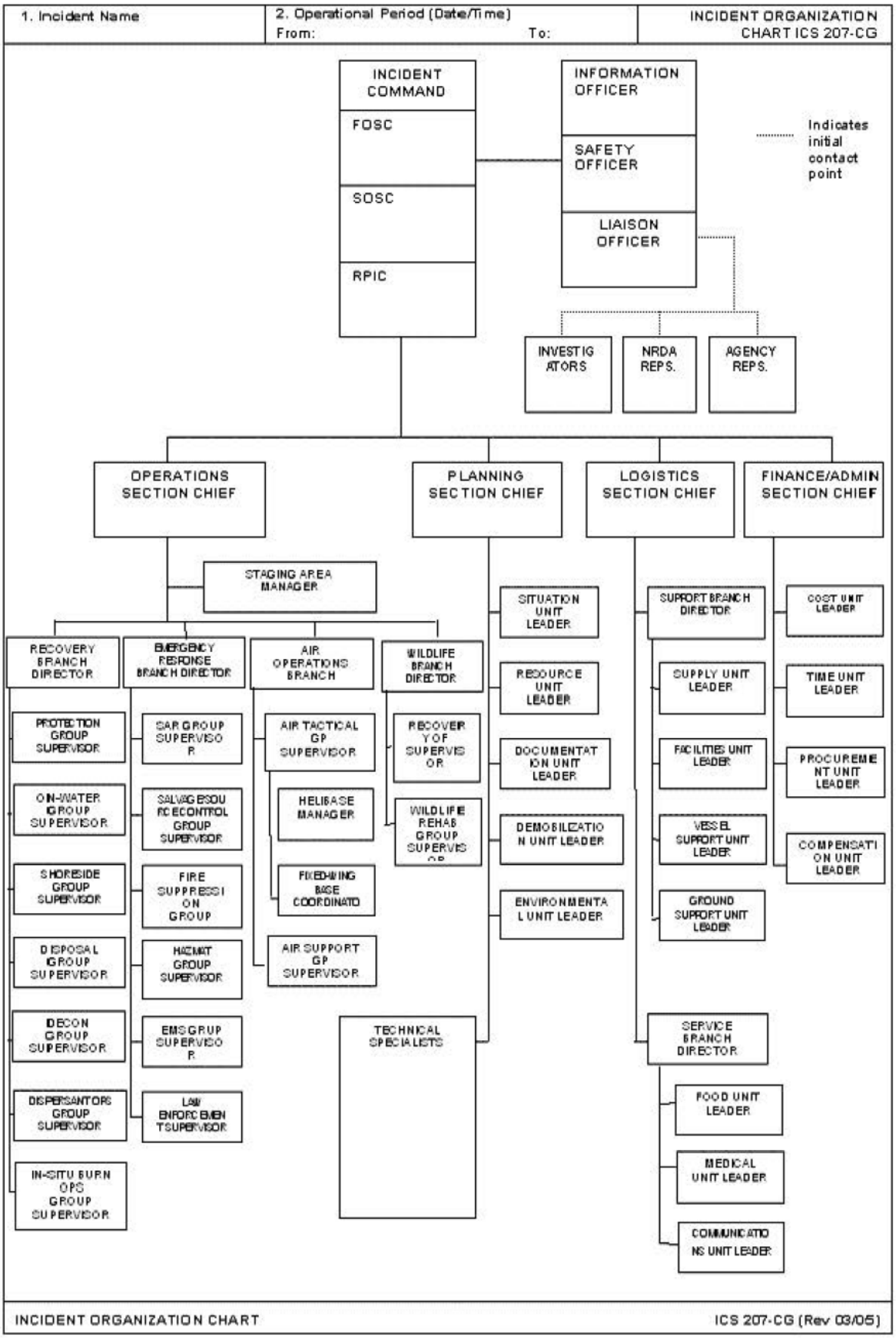
5. Hospitals

Hospital Name	Address	Contact #	Travel Time		Burn Ctr?	Heli-Pad?
			Air	Ground		

6. Special Medical Emergency Procedures

7. Prepared by: (Medical Unit Leader) Date/Time	8. Reviewed by: (Safety Officer) Date/Time

MEDICAL PLAN ICS 206-CG (Rev.07/04)



SITE SAFETY PLAN

I. General

☐ Pump Station ☐ Pipeline Spill ☐ Spill to Water ☐ Excavation ☐ Other: _____

Location: _____

Work to be performed: _____

Issuing Date: _____ Time: _____
Temperature: ___° Wind Direction: ___
Humidity: _____

II. Hazards to be Evaluated

Y	N		Y	N		SPECIFIC HAZARDS Y	N	
☐	☐	Oxygen Deficient/Enriched	☐	☐	Ingestion / Skin Absorption	☐	☐	Crude Oil
☐	☐	Flammable Atmosphere	☐	☐	Frostbite	☐	☐	Other* ( )
		(Explosion Fire)	☐	☐	Chemical/MSDS # _____			
☐	☐	Toxic Atmosphere: _____			(Must be attached)			
☐	☐	Boat Operations	☐	☐	Physical Hazard _____			
☐	☐	Confined Space	☐	☐	Traffic _____			
			☐	☐	Vapor Cloud			

III. Testing & Monitoring (Check required items)

Tests are to be performed in the order listed.

Y	N		Continuous		Frequency	ACCEPTABLE ENTRY CONDITIONS		
☐	☐	Oxygen Level	☐Y	☐N	_____ every ____	19.5 – 23.0% in air	< 19.5% or 23.0% in air	< 16.0 or ≥ 23.5% in air
☐	☐	LEL	☐Y	☐N	_____ every ____	< 10% in air	≥ 10.0 but < 20.0% in air	≥ 20.0% in air
☐	☐	Hydrogen Sulfide	☐Y	☐N	_____ every ____	< 10 ppm	≥ 10 but < 100 ppm	≥ 100 ppm
☐	☐	Benzene	☐Y	☐N	_____ every ____	< .5 ppm	≥ .5 but < 10 ppm	≥ 10 ppm
☐	☐	Total Hydrocarbons	☐Y	☐N	_____ every ____	< 300 ppm	≥ 300 but < 750 ppm	≥ 750 ppm
☐	☐	Other: _____	☐Y	☐N	_____ every ____			

IV. 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/Escape	☐ Ear Plugs	☐ Leather	☐ Steel-toes	☐ FR Coveralls
☐ Safety Harness	☐ Goggles	☐ Air Line	☐ Ear Muffs	☐ Rubber	☐ Rubber	☐ Tyvek
☐ PFD	☐ Face-shield	☐ Air Purifying (Full Mask)	☐ Combination	☐ Nitrile	☐ Hip-boots	☐ Coated Tyvek
	☐ Tinted Lens	Cartridge Type: ☐ OV	☐ Hepa-OV	☐ PVC	☐ _____	☐ Saranyx
				☐ _____		☐ _____

Any other special PPE: _____

V. 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)

VI. Required Safety & Rescue Equipment (on site)

☐Lights	☐Fall Protection	☐First Aid Kit	☐Drinking Water	☐Fire Extinguisher	☐Tripod	☐Other:
☐Ladder	☐Retrieval Lines	☐Resuscitator	☐Communication Method			

VII. Comments or Special Work Procedures

VIII. Report All Injuries Immediately

IX. Control Measures

• Isolation & Lockout (identify items to be locked out)	• Ventilation ☐ Natural ☐ Mechanical
• Establish Work Zones when completed	Continuous ☐ No ☐ Yes
☐ Hot Zone = Red Ribbon	• Flagman / Watchman ☐
☐ Warm Zone = Yellow Ribbon	• Confined Space – Safety Watch ☐
☐ Cold Zone = Blue Ribbon	(See Exhibit "B" for Permit)
	• Evacuation Routes – (Identify on Map)
	☐ Air Horn – Emergency
	☐ Primary Route
	☐ Secondary Route

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

Equipment: Type:_____ Mfger:_____ Calibration / Expiration: _____
Type:_____ Mfger:_____ Calibration / Expiration: _____

NRC Incident No. #:_____

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG ICS 214-CG
3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: Date/Time

UNIT LOG ICS 214-CG (Rev 6/05)

NRC Incident No. #______________________________

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT LOG (CONT.) ICS 214-CG

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by:	Date/Time:

UNIT LOG ICS 214-CG (Rev 6/05)

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.

The Company will explore, where appropriate, equivalent environmental protection systems, methods, devices, or technologies that maintain or may be less damaging to the character of heritage resources or archeological sites. If a release from the pipeline impacts a heritage resource, the Company will respond as outlined in Section 3.0, report to the appropriate authority prescribed by law, cleanup and restore the area as required by regulation, and conduct such sampling, analyses, or associated monitoring during and after restoration.

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

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 FISHERIES AND WILDLIFE PROTECTION

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.

Protecting fish habitat (e.g. spawning and rearing grounds) is important to both consumers and commercial fisheries. Beyond typical response strategies, other options could include moving floating facilities, temporarily sinking facilities using cages designed for this purpose, temporary suspension of water intakes, or closing sluice gates to isolate the facilities from contamination.

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.

Wildlife Rescue

The Company will work with Federal, Province/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.

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 on 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.

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, 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.

  Prior to the use of dispersant agents, ensure that permission has been granted by government authorities and local landowner. 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. Regional Response Teams can only give approval for use of dispersant agents.

- **Removal Methods**

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

  - 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.

Spill in Nearshore 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.

Maintaining shipping or other kinds of vessel traffic through navigation channels or waterways during a spill response is a difficult consideration because there is usually economic and political pressure to re-establish normal operations as soon as possible. For these reasons, recovery efforts must be coordinated through the Unified Command to ensure the cooperation of all parties involved.

- **Confinement Methods**

  In harbor areas, oil can often be contained by a vessel of opportunity or a dedicated Oil Spill Response Vessel (OSRV) using containment booms and skimmers. Optimum conditions for recovery operations would be with currents of 3 knots or less. The facility could also deploy boom from shore to contain and concentrate product in the vicinity of the release point until the product can be removed.

Spill on Small to Medium Size Streams (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. 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 stationary type permits adjustments to be made in depth to provide for a better separation of product and water. The advantages of using a floating boom are the speed of deployment and the fact that there is no need for additional support as with the stationary boom.

- 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 or 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 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; others are intended only to be placed on the product after it accumulates on the water. 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.

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, and absorbents, to ensure a complete cleanup.

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 used.

  If the floating skimmer starts picking up excess water (slick becomes thin), 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, ensure that the absorbent in question can be pumped and will not harm the pump. 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.

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 current of the entire river is 1/2 knot (0.8 ft/sec) 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 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. 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 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 has 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 holding tank.

The absorbents would then be used upstream of the secondary boom to absorb the underflow from the primary boom. An absorbent boom can also be placed between the primary and secondary booms to help the other absorbents control the underflow from the primary boom.

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.

Spill on Stream which Flows into Lake or Pond

In certain locations where streams (small and large ones) flow into lakes or ponds at relatively short distances, it is conceivable that a spill could reach the lake before containment and recovery operations are 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. 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.

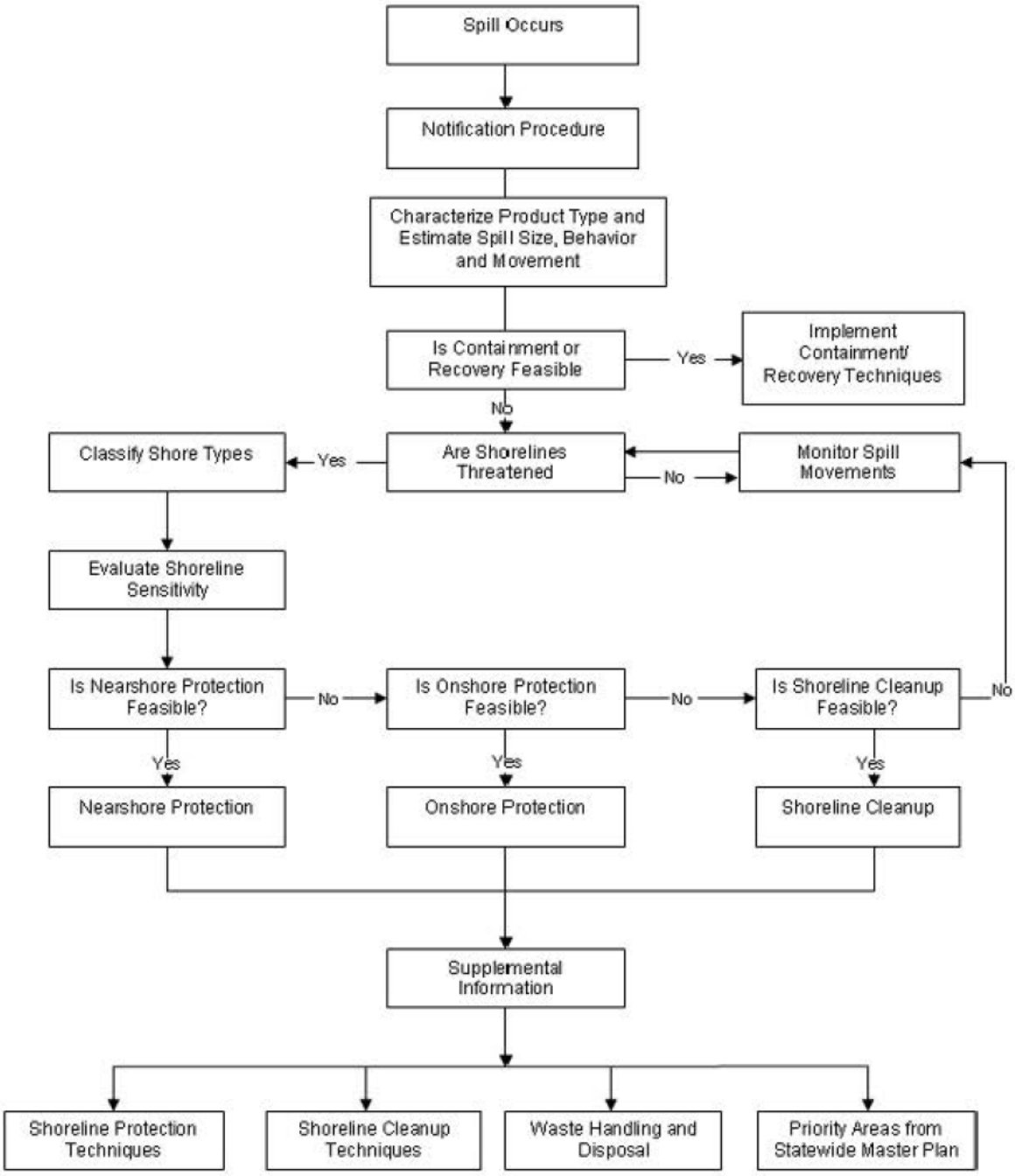
- **Removal Methods**

  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.

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 Environmental Sensitivity Maps located in Figure 6.2 identify sensitive areas along the Pipeline. The appropriate Area Contingency Plan maps are also included to provide more detailed information on sensitivities and possible potential response options.

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

ENVIRONMENTAL SENSITIVITY MAPS

ESMs		
ESM Index	ESM1	ESM2
ESM3	ESM4	ESM5

FIGURE 6.3

ENDANGERED/THREATENED SPECIES LISTING

Texas		
Animals		
Status	**Species Name**	**Scientific Name**
E	Amphipod, Peck's cave	*Stygobromus (=Stygonectes) pecki*
E	Bat, Mexican long-nosed	*Leptonycteris nivalis*
T	Bear, Louisiana black	*Ursus americanus luteolus*
E	Beetle, American burying	*Nicrophorus americanus*
E	Beetle, Coffin Cave mold	*Batrisodes texanus*
E	Beetle, Comal Springs dryopid	*Stygoparnus comalensis*
E	Beetle, Comal Springs riffle	*Heterelmis comalensis*
E	Beetle, Helotes mold	*Batrisodes venyivi*
E	Beetle, Kretschmarr Cave mold	*Texamaurops reddelli*
E	Beetle, Tooth Cave ground	*Rhadine persephone*
E	Crane, whooping except where EXPN	*Grus americana*
E	Curlew, Eskimo	*Numenius borealis*
E	Darter, fountain	*Etheostoma fonticola*
E	Falcon, northern aplomado	*Falco femoralis septentrionalis*
E	Flycatcher, southwestern willow	*Empidonax traillii extimus*
E	Gambusia, Big Bend	*Gambusia gaigei*
E	Gambusia, Clear Creek	*Gambusia heterochir*
E	Gambusia, Pecos	*Gambusia nobilis*
E	Gambusia, San Marcos	*Gambusia georgei*
E	Ground beetle, [unnamed]	*Rhadine exilis*
E	Ground beetle, [unnamed]	*Rhadine infernalis*
E	Harvestman, Bee Creek Cave	*Texella reddelli*
E	Harvestman, Bone Cave	*Texella reyesi*
E	Harvestman, Cokendolpher Cave	*Texella cokendolpheri*
E	Jaguar	*Panthera onca*
E	Jaguarundi, Gulf Coast	*Herpailurus (=Felis) yagouaroundi cacomitli*
E	Manatee, West Indian	*Trichechus manatus*

Texas (Cont'd)		
Animals		
Status	**Species Name**	**Scientific Name**
E	Margay Mexico southward	*Leopardus (=Felis) wiedii*
E	Meshweaver, Braken Bat Cave	*Cicurina venii*
E	Meshweaver, Government Canyon Bat Cave	*Cicurina vespera*
E	Meshweaver, Madla's Cave	*Cicurina madla*
E	Meshweaver, Robber Baron Cave	*Cicurina baronia*
T	Minnow, Devils River	*Dionda diaboli*
E	Minnow, Rio Grande silvery	*Hybognathus amarus*
E	Ocelot	*Leopardus (=Felis) pardalis*
T	Owl, Mexican spotted	*Strix occidentalis lucida*
E	Pelican, brown except U.S. Atlantic coast, FL, AL	*Pelecanus occidentalis*
T	Plover, piping except Great Lakes watershed	*Charadrius melodus*
E	Prairie-chicken, Attwater's greater	*Tympanuchus cupido attwateri*
E	Pseudoscorpion, Tooth Cave	*Tartarocreagris texana*
E	Pupfish, Comanche Springs	*Cyprinodon elegans*
E	Pupfish, Leon Springs	*Cyprinodon bovinus*
E	Salamander, Barton Springs	*Eurycea sosorum*
T	Salamander, San Marcos	*Eurycea nana*
E	Salamander, Texas blind	*Typhlomolge rathbuni*
E	Sawfish, smalltooth	*Pristis pectinata*
T	Sea turtle, green except where endangered	*Chelonia mydas*
E	Sea turtle, hawksbill	*Eretmochelys imbricata*
E	Sea turtle, Kemp's ridley	*Lepidochelys kempii*
E	Sea turtle, leatherback	*Dermochelys coriacea*
T	Sea turtle, loggerhead	*Caretta caretta*
T	Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*
E	Snail, Pecos assiminea	*Assiminea pecos*
T	Snake, Concho water	*Nerodia paucimaculata*

Texas (Cont'd)		
Animals		
Status	**Species Name**	**Scientific Name**
E	Spider, Government Canyon Bat Cave	*Neoleptoneta microps*
E	Spider, Tooth Cave	*Leptoneta myopica*
E	Tern, least interior pop.	*Sterna antillarum*
E	Toad, Houston	*Bufo houstonensis*
E	Vireo, black-capped	*Vireo atricapilla*
E	Warbler (=wood), golden-cheeked	*Dendroica chrysoparia*
E	Whale, finback	*Balaenoptera physalus*
E	Whale, humpback	*Megaptera novaeangliae*
E	Wolf, gray Lower 48 States, except where delisted and where EXPN. Mexico.	*Canis lupus*
E	Wolf, red except where EXPN	*Canis rufus*
E	Woodpecker, ivory-billed	*Campephilus principalis*
E	Woodpecker, red-cockaded	*Picoides borealis*

Texas		
Plants		
Status	**Species Name**	**Scientific Name**
E	Ambrosia, south Texas	*Ambrosia cheiranthifolia*
E	Ayenia, Texas	*Ayenia limitaris*
E	Bladderpod, white	*Lesquerella pallida*
E	Bladderpod, Zapata	*Lesquerella thamnophila*
E	Cactus, black lace	*Echinocereus reichenbachii var. albertii*
T	Cactus, Chisos Mountain hedgehog	*Echinocereus chisoensis var. chisoensis*
T	Cactus, Lloyd's Mariposa	*Echinomastus mariposensis*
E	Cactus, Nellie cory	*Coryphantha minima*
E	Cactus, Sneed pincushion	*Coryphantha sneedii var. sneedii*
E	Cactus, star	*Astrophytum asterias*
E	Cactus, Tobusch fishhook	*Ancistrocactus tobuschii*
E	Cat's-eye, Terlingua Creek	*Cryptantha crassipes*
T	Cory cactus, bunched	*Coryphantha ramillosa*
E	Dawn-flower, Texas prairie	*Hymenoxys texana*
E	Dogweed, ashy	*Thymophylla tephroleuca*
E	Frankenia, Johnston's	*Frankenia johnstonii*
E	Ladies'-tresses, Navasota	*Spiranthes parksii*
E	Manioc, Walker's	*Manihot walkerae*
T	Oak, Hinckley	*Quercus hinckleyi*
E	Phlox, Texas trailing	*Phlox nivalis ssp. texensis*
E	Pitaya, Davis' green	*Echinocereus viridiflorus var. davisii*
E	Pondweed, Little Aguja (=Creek)	*Potamogeton clystocarpus*
E	Poppy-mallow, Texas	*Callirhoe scabriuscula*
E	Rush-pea, slender	*Hoffmannseggia tenella*
E	Sand-verbena, large-fruited	*Abronia macrocarpa*
E	Snowbells, Texas	*Styrax texanus*
T	Sunflower, Pecos (=puzzle, =paradox)	*Helianthus paradoxus*

Texas (Cont'd)		
Plants (Cont'd)		
Status	**Species Name**	**Scientific Name**
E	Wild-rice, Texas	*Zizania texana*

APPENDIX A

RESPONSE EQUIPMENT/RESOURCES

A.1 COMPANY OWNED RESPONSE EQUIPMENT

Refer to Figure A.1 for a list of the Company owned response equipment. Detergents or other surfactants are prohibited from being used on an oil spill in the water, and dispersants can only be used with the approval of the Regional Response Team.

A.2 OTHER COMPANY RESOURCES

Additional Company spill response equipment and manpower resources may be available to supplement the response operation. These resources include:

- A general inventory of communications equipment, audio/video equipment, and other support items is available through Emergency Management.

A.3 CONTRACT RESOURCES

In the event of a discharge which is beyond the initial response capabilities of the Local Response Team, contract manpower and equipment resources can be obtained through Oil Spill Removal Organization(s) (OSRO). These OSROs can provide manpower and containment/clean-up equipment for the response operation.

The resources will be secured from a Company approved contractor. Management will typically handle notification/implementation of these resources. Figure A.2 provides a quick reference to the Oil Spill Removal Organizations and details their response capability and estimated response times. **Telephone reference is provided in Figure 2.5.** *(Note: The Company will ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place at contract renewal.)*

A.4 COOPERATIVE/MUTUAL AID RESOURCES

The Facility is not currenlty associated with a Cooperative/ Mutual Aid system. All response resources would be either Company owned or contracted.

A.5 VOLUNTEERS

The Company will not use volunteers for response operations. All volunteers will be refered to the State or Federal On-Scene Coordinator.

A.6 COMMUNICATIONS

Effective and efficient communications systems are essential for emergency response at every level. The communications system will be utilized to gather information and current status reports as well as to provide coordination and direction to widely separated work groups involved in search, containment/ diversion, repair, traffic control, public control or evacuation, and restoration.

Lines of communication between the Incident Commander, Local Response Team, and Emergency Management members are demonstrated in the organization chart shown in Figure 4.1. Communication of the overall spill response operation between the Facility and the responsible government agencies in the Federal Regional Response Team (RRT) will occur between the Incident Commander and the Federal On-Scene Coordinator.

Central Communications System

Prearranged communication channels are of the utmost importance in dealing with Company emergencies. The notification procedures and telephone contacts documented in Section 2.0 will be reviewed in accordance with the earlier documented updating procedures. The predetermined communications channels include the following:

- A list of emergency telephone numbers for internal management and emergency response personnel (Figures 2.2 and 2.5).
- A list of emergency telephone numbers for various external resources such as the Fire Departments, Public Officials and local agencies is provided in the Annexes.
- A list of emergency telephone numbers for contract response resources (Figure 2.5).

Communications Equipment

Field communications during a spill response will be handled via radios, telephones, cellular phones, fax machines, and computers and will be maintained by Company personnel. In the event of a Worst Case Discharge, field communications will be enhanced with contract resources as the situation demands.

Communications Type

Voice communications may be conducted over the public telephone system or Company provided two-way radio equipment.

Radios- Handheld and vehicle mounted radio sets are the most effective means of communication for the field response operation. The units are battery operated, multichanneled, and have a typical range that will cover the area of the response operation. Additional radio sets and battery packs/charges will be necessary in the event of a prolonged response operation.

Telephone (Conventional)- Conventional land-line telephones are the most effective means of communication for regulatory and advisory notifications during response operations. Additional telephone lines can be installed in the event of a prolonged response operation.

Cellular- Cellular telephones allow for added mobility and response effectiveness. Cellular phones are commonly maintained by certain Company personnel. Additional cellular phones can be secured in the event of a prolonged response operation.

FAX Machines- FAX machines allow for a rapid transfer of information/ documentation such as status reports/updates, written notifications, and purchase orders.

Computers- Computers are commonly used in networks which allow access to various other locations and company personnel. Computers also speed the consolidation of information and preparation of written report.

FIGURE A.1

COMPANY OWNED SPILL RESPONSE EQUIPMENT

See Response Zone Annexes for a list of facility-owned response equipment.

FIGURE A.2

RESPONSE RESOURCES

Zone : Double Eagle Response Zone

Area : Double Eagle Response Area

OSRO Name	Contract Number	Environment Type	Facility Classification Level			
			MM	W1	W2	W3
Corpus Christi Area Oil Spill Association	N/A	River/Canal	X			
		Inland	X			
		Open Ocean				
		OffShore				
		Near Shore				
		Great Lakes				

OSRO Name	Contract Number	Environment Type	Facility Classification Level			
			MM	W1	W2	W3
Miller Environmental Services	N/A	River/Canal	X	X	X	X
		Inland			X	X
		Open Ocean				
		OffShore				
		Near Shore				
		Great Lakes				

FIGURE A.3

USCG OSRO CLASSIFICATIONS

The USCG has classified OSROs according to their response capabilities, within each Captain of the Port (COTP) zone, for vessels and for facilities in four types of environments. Response capabilities are rated MM, W1, W2, or W3 as described below.

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS			
Classification	**Resource Quantity Guidelines**	**Maximum Facility Response Times**	**Maximum Vessel Response Times**
Rivers/Canals			
MM	Protective Boom: 4,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W1	Protective Boom: 25,000*ft EDRC: 1,875 bbls TSC: 3,750 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W2	Protective Boom: 25,000*ft EDRC: 3,750 bbls TSC: 7,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W3	Protective Boom: 25,000*ft EDRC: 7,500 bbls TSC: 15,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Great Lakes			
MM	Protective Boom: 6,000*ft EDRC: 1,250 bbls TSC: 2,500 bbls	All Ports: 6 hours	All Ports: 12 hours
W1	Protective Boom: 30,000*ft EDRC: 6,250 bbls TSC: 12,500 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W2	Protective Boom: 30,000*ft EDRC: 12,500 bbls TSC: 25,000 bbls	All Ports: 36 hours	All Ports: 42 hours
W3	Protective Boom: 30,000*ft EDRC: 25,000 bbls TSC: 50,000 bbls	All Ports: 60 hours	All Ports: 66 hours

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS			
Classification	**Resource Quantity Guidelines**	**Maximum Facility Response Times**	**Maximum Vessel Response Times**
Inland			
MM	Protective Boom: 6,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W1	Protective Boom: 30,000*ft EDRC: 12,500 bbls TSC: 25,500 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W2	Protective Boom: 25,000*ft EDRC: 12,500 bbls TSC: 25,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W3	Protective Boom: 25,000*ft EDRC: 50,500 bbls TSC: 100,500 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Great Lakes			
MM	Protective Boom: 8,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W1	Protective Boom: 30,000*ft EDRC: 12,500 bbls TSC: 25,500 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W2	Protective Boom: 30,000*ft EDRC: 25,500 bbls TSC: 50,500 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W3	Protective Boom: 30,000*ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Ports: 72 hours (for open ocean, plus travel time from shore)

MINIMUM EQUIPMENT REQUIREMENTS FOR OSRO CLASSIFICATIONS			
Classification	**Resource Quantity Guidelines**	**Maximum Facility Response Times**	**Maximum Vessel Response Times**
Offshore			
MM	Protective Boom: 6,000*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W1	Protective Boom: 15,000*ft EDRC: 12,500 bbls TSC: 25,500 bbls	High Volume Ports: 24 hours Other Ports: 48 hours	High Volume Ports: 24 hours Other Ports: 48 hours
W2	Protective Boom: 15,000*ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W3	Protective Boom: 15,000*ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours
Open Ocean			
MM	Protective Boom: 0*ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W1	Protective Boom: 0*ft EDRC: 12,500 bbls TSC: 25,500 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W2	Protective Boom: 0*ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Ports: 36 hours	High Volume Ports: 36 hours Other Ports: 48 hours
W3	Protective Boom: 0*ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Ports: 60 hours	High Volume Ports: 60 hours Other Ports: 72 hours

1. Rivers/canals include bodies of water, including the Intracoastal Waterway and other bodies artificially created for navigation, confined within an inland area and having a project depth of 12 feet (3.66 meters).
2. EDRC stands for "effective daily recovery capacity," or the calculated recovery capacity of oil recovery devices determined by using a formula that takes into account limiting factors such as daylight, weather, sea state, and emulsified oil in the recovered material.
3. TSC stands for "temporary storage capacity," meaning sufficient storage capacity equal to twice the EDRC of an OSRO. Temporary storage may include inflatable bladders, rubber barges, certified barge capacity, or other temporary storage that can be utilized on scene at a spill response and which is designed and intended for the storage of flammable or combustible liquids. It does not include vessels or barges of opportunity for which no pre-arrangements have been made. Fixed shore-based storage capacity, ensured available by contract or other means, will be acceptable.

* In addition, 1,000 feet of containment boom plus 300 feet per skimming system.

FIGURE A.4

AGREEMENTS/CONTRACTS

Click to view the file - Miller Agreement_27_6_2013_9_42_19.pdf

Click to view the file - CCAOSCA January 2013 Book 27 6 2013 9 41 2.pdf

APPENDIX B

WORST CASE DISCHARGE ANALYSIS AND SCENARIOS

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 Company 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.

United States Department of Transportation/Pipeline and Hazardous Materials Safety Administration 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

There have been no historic discharges from the Copano Double Eagle Pipeline. If a discharge occurs the Worst Case Discharge information provided will be reevaluated against actual discharge volumes and revised as appropriate.

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 2.5. 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

Double Eagle Response Zone

PHMSA Worst Case Discharge = (b) (7)(F)

A worst case discharge for the Double Eagle Response Zone is considered to be discharge that does not exceed (b) (7)(F) .

Pipeline Worst Case Discharge = (b) (7)(F)

Description

(b) (7)(F)

Volume

(b) (7)(F)

The Company has determined the worst case discharge volume is the greater of, 1) a catastrophic line failure of the largest line section with the greatest drainage capacity in the response zone or 2) 30 percent of the volume of the largest tank in each zone.

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 arriving at the staging area within the applicable response tier requirements for high volume areas (Tier 1 = 6 hours; Tier 2 = 30 hours; Tier 3 = 54 hours).
- Resources capable of oil recovery in inclement weather conditions (i.e. heavy rain, snow, ice).

Notes

- Contracted and Company owned equipment and manpower resources are detailed in Figure 2.5 and Appendix A.
- Telephone references are provided in Figures 2.2 and 2.5.

Breakout Tank Worst Case Discharge = (b) (7)(F)

Description

(b) (7)(F)

Volume

The worst case discharge scenario involving breakout tankage uses the single largest volume tank in the response zone, adjusted for the size of the secondary containment system. Applicable adjustment(s) for the largest tank include:

Spill Prevention Measures	Percent Reduction Allowed
Built Repaired to API standards	10%
Overfill protection standards	5%
Testing/cathodic protection	5%
Secondary containment capacity greater than 100% capacity of tank and designed according to NFPA 30	50%

(b) (7)(F)

Double Eagle Response Zone

RESPONSE PLANNING VOLUME CALCULATIONS

Location Data			
Location Type			Inland/Near Shore
Port Type			High Volume
WCD Product Type			Crude Oil
Product Group			3
Pipeline and Hazardous Materials Safety Administration WCD Volume (bbls)			(b) (7)
Discharge Volumes/Calculations			
Worst Case Discharge - Based on Pipeline and Hazardous Materials Safety Administration criteria (bbls)			(b) (7)
Selected Calculation Factors (Based on USCG Tables)			
Removal Capacity Planning Volume - Percent Natural Dissipation			30%
Removal Capacity Planning Volume - Percent Recovered Floating Oil			50%
Removal Capacity Planning Volume - Percent Oil Onshore			50%
Emulsification Factor			2
Tier 1 - On Water Oil Recovery Resource Mobilization Factor			15%
Tier 2 - On Water Oil Recovery Resource Mobilization Factor			25%
Tier 3 - On Water Oil Recovery Resource Mobilization Factor			40%
Response Planning Volume Calculation			
			(b) (7)(F)
On-Water Recovery Volume (bbls)			
Shoreline Recovery Volume (bbls)			
Shoreline Cleanup Volume (bbls)			
	Tier 1	Tier 2	Tier 3
On-Water Recovery Cpcty (bbls/day)	6,795	11,325	18,120
Shallow Water Resp Cpblty (bbls/day)	1,359	2,265	3,624
Storage Capacity (bbls/day)	13,590	22,650	36,240
On-Water Response Caps (bbls/day)	12,500	25,000	50,000
Additional Response Req'd (bbls/day)	0	0	0
Response Time (hrs)	6	30	54

APPENDIX C

EMERGENCY PRE-PLANNING

EMERGENCY PRE-PLANNING

Leak detection and discharge prevention is accomplished through safe operating procedures and maintenance procedures outlined in the Company Operations and Maintenance (O&M) Manual. The Company Operations and Maintenance Manual is designed to meet the requirements found in Title 49, US Code of Federal Regulations, Part 195, Transportation of Hazardous Liquids by Pipeline.

C.1 RELEASE DETECTION

Spill prevention is the central focus of this Emergency Preparedness program. Kinder Morgan believes that the best method of mitigating any oil spill is by taking every reasonable precaution to prevent the spill from ever occurring. In addition to the potential emergency events outlined in this Plan, Kinder Morgan has identified several "abnormal operations" and "emergency incidents" that could be expected on the pipeline system. Kinder Morgan has defined the events and established procedures to identify, eliminate or mitigate a substantial threat of worst case discharge due to these events. In compliance with 49 CFR 195.402(d), these procedures are defined in Kinder Morgan procedure L-O&M 1101 and 1102. The following is a brief overview of some of the activities Kinder Morgan engages in as part of its spill prevention strategy.

Regulatory Compliance

It is Kinder Morgan's goal to conduct all its pipeline operations, including those preventative measures specifically listed below, in accordance with DOT Part 195, ANSI 31.4, and all other applicable and appropriate regulations which address spill prevention for onshore liquid petroleum pipelines.

C.2 LEAK DETECTION SYSTEMS

(b) (7)(F)

[redacted]

Right Of Way Patrol

Kinder Morgan regularly patrols the Double Eagle system using the following methods:

- Weekly aerial patrol of the entire system.
- Foot patrol of heavily-populated areas by line maintenance personnel.
- Prompt response to activity reports received through the various state utility "one-call" systems. Kinder Morgan is a member and supporter of one-call efforts in all states along its system.
- Inspections of major river crossings.

C.3 DISCHARGE PREVENTION SYSTEMS

Cathodic Protection

Double Eagle has an actively maintained cathodic protection system installed on its entire system designed to prevent corrosion of the system.

(b) (7)(F)

[redacted]

Construction/Repair Inspection

Kinder Morgan carefully inspects system construction and repair work to ensure the proper installation and operation of system components.

Scheduled Maintenance Program

In accordance with 49CFR Part 195, Kinder Morgan has an extensive scheduled preventative maintenance program.

Right Of Way Maintenance

Kinder Morgan regularly mows, trims and maintains its system right of way to ensure the effectiveness of aerial patrols. Kinder Morgan regularly inspects the Double Eagle system block valves. In addition to meeting DOT pipeline marker regulations, it is Kinder Morgan's goal to rovide "line-of-sight" pipeline markers (the ability to stand at any marker and see the next pipeline marker in either direction along the right of way) along its entire system.

APPENDIX D

TRAINING AND DRILLS

D.1 RESPONSE TEAM TRAINING

Training sessions will be conducted as needed for all personnel involved in the Plan, to review the manual and the latest revisions and update spill cleanup procedures. Training programs should also be responsive to changes brought on by new employees, transfers, or promotions which involve spill response duties, and acquisition or introduction of new response equipment. Training will be conducted annually at a minimum, and should be repeated or upgraded when employee performance observed during drills or actual spill response reveals a need for improvement by the QI or Operations. Frequency of training sessions will be conducted on an as needed basis. Additionally, a review of applicable regulations and other governmental requirements (HAZWOPER, USCG Captain of Ports Directives, PHMSA, and U.S. EPA guidelines) will be discussed.

Through the various training methods described below the Company's training program is intended to ensure the following results:

That all personnel know:

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

That all reporting personnel know:

- The Pipelines and Response Zone details for the affected area (Response Zones Annexes).
- The telephone number of the Federal, State and local agencies and other required notifications (Section 2.0).
- The notification process. (Section 2.0).

That all response personnel know:

- The characteristics and hazards of the oil discharged (Section 3.0 and Appendix H - MSDS).
- The conditions that is likely to worsen emergencies, including the consequences of pipeline malfunctions, and the appropriate corrective actions.
- The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity or environmental damage (Section 3.0).

Oil Spill 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.

HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (29 CFR 1910.120)

Federal and State regulations require that Response Team Members maintain up-to-date Hazardous Waste Operations and Emergency Response training necessary to function in their assigned positions. At a minimum, team members will receive "First Responder Awareness Level" training. All personnel responding to an incident must satisfy the applicable Hazardous Waste Operations and Emergency Response training requirements of 29 CFR 1910.120.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE 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

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

Incident Command System

Response Team Members will receive Incident Command System training and may also receive supplemental training in other related general topics.

Training Records Maintenance

Emergency response training records are maintained at the Company's office. Training records for response personnel will be maintained for as long as personnel have duties in this Emergency Response Plan.

Contractor Training

The Company also recognizes that contract personnel must also have sufficient training to respond 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 uses 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 the Occupational Safety and Health Administration, 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. The Company personnel with responsibility to coordinate the training program also conduct periodic informal audits of training courses selected for the Company training program to ensure their suitability for the program.

D.2 RESPONSE TEAM EXERCISES

Spill Management Team members, government agencies, contractors, 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 drills to maintain compliance, and each plan-holder must participate in at least one exercise annually. The following table lists the triennial exercise cycle for facilities (see National Preparedness for Response Exercise Program Guidelines for full details).

TRIENNIAL CYCLE		
Total Number	**Frequency**	**Exercise Type/Description**
12	Quarterly	Qualified Individual Notification Exercise
3	Annually	Equipment Deployment Exercise *(Facility-owned equipment)*
3	Annual	Response Team Tabletop Exercise
3	Annual	Equipment Deployment Exercise *(facilities with Oil Spill Removal Organization-owned equipment)*
3	3 per Triennial Cycle	Unannounced Exercise *(not a separate exercise)* Actual response can be considered as an unannounced exercise. Credit can also be given for unannounced equipment deployment and Response Team tabletop exercises.
NOTES: 1) All Emergency Response Plan components must be exercised at least once in the Cycle. 2) Triennial cycle is completed for each response zone.		

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between Pipeline personnel and the Qualified Individual(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 Qualified Individual 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.

Annual Equipment Deployment Exercise (for operator and/or Oil Spill Removal Organization equipment)

- **Scope:** Demonstrate ability to deploy spill response equipment identified in the Oil Spill Response Plan.

  May consist entirely of operator or OSRO owned equipment, or a combination of OSRO and operator equipment.
  The number of equipment deployment exercises conducted should be such that equipment and personnel assigned to each Response Zone are exercised at least once a year and semi-annually for each terminal with response equipment. If the same personnel and equipment respond to multiple zones, they need only exercise once per year. If different personnel and equipment respond to various Response Zones, each must participate in an annual equipment deployment exercise.

- **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 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.

- **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 an initial 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.

Government-Initiated Unannounced Exercise

- **Scope:** Demonstrate ability to respond to a Worst Case Discharge spill event.

- **Objectives:** Designated Oil Spill Response Team Members should demonstrate adequate knowledge of their Emergency Response Plan and the ability to organize, communicate, coordinate, and respond in accordance with that Plan.

- **General:** Maximum of 20 unannounced Pipeline and Hazardous Materials Safety Administration exercises conducted annually for the pipeline industry as a whole. A single owner or operator will not be required to participate in a PHMSA-initiated unannounced exercise if they have already participated in one within the previous 36 months.

Area Exercises

- **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 Oil Pollution Act 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 Company office; 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 five (5) years for the Pipeline and Hazardous Materials Safety Administration and the U.S. Environmental Protection Agency).

D.3 PURPOSE OF REVIEW AND EVALUATION

This Section provides procedures and information useful to responders for post incident/exercise review and evaluation. Post incident/exercise reviews should be conducted in a timely manner following an incident/exercise. The Plan should be evaluated to determine its usefulness during the incident/exercise and appropriate revisions should be made. All incident/exercise documentation should be included in the Plan evaluation process.

Outline of Review

Given below are items a team composed of outside people knowledgeable in spill response and key members of the response teams should examine. These questions are intended as guidelines only; many other questions are likely to be appropriate at each stage of a critique.

Detection

- Was the spill detected promptly?
- How was it detected? By whom?
- Could it have been detected earlier? How?
- Are any instruments or procedures available to consider which might aid in spill detection?

Notification

- Were proper procedures followed in notifying government agencies? Were notifications prompt?
- Was management notified promptly/response appropriate?
- Was the Pipeline owner/operator notified promptly? If so, why, how, and who? If not, why not?

Assessment/Evaluation

- Was the magnitude of the problem assessed correctly at the start?
- What means were used for this assessment?
- Are any guides or aids needed to assist spill evaluation?
- What sources of information were available on winds and on water currents?
- Is our information adequate?
- Was this information useful (and used) for spill trajectory forecasts? Were such forecasts realistic?
- Do we have adequate information on product properties?
- Do we need additional information on changes of product properties with time, i.e., as a result of weathering and other processes?

Mobilization

- What steps were taken to mobilize spill countermeasures?
- What resources were used?
- Was mobilization prompt?
- Could it have been speeded up or should it have been?
- What about mobilization of manpower resources?
- Was the local spill cooperative used appropriately?
- How could this be improved?
- Was it appropriate to mobilize the Pipeline owner/operator resources and was this promptly initiated?
- What other resources are available and have they been identified and used adequately?

Response - Strategy

- Is there an adequate Spill Response Plan for the location?
- Is it flexible enough to cope with unexpected spill events?
- Does the Plan include clear understanding of local environmental sensitivities?
- What was the initial strategy for response to this spill?
- Is this strategy defined in the Spill Plan?
- How did the strategy evolve and change during this spill and how were these changes implemented?
- What caused such changes?
- Are there improvements needed? More training?

Response - Resources Used

- What resources were mobilized?
- How were they mobilized?
- How did resource utilization change with time? Why?
- Were resources used effectively?
    - Contractors
    - Government agencies
    - Company resources
    - Cooperatives
    - Volunteers
    - Consultants
    - Other (e.g., bird rescue centers)
- What changes would have been useful?
- Do we have adequate knowledge of resource availability?
- Do we have adequate knowledge of waste disposal capabilities?

Response - Effectiveness

- Was containment effective and prompt?
- How could it have been improved?
- Should the location or the local cooperative have additional resources for containment?
- Was recovery effective and prompt?
- How could it have been improved?
- Should the location or the local cooperative have additional resources for recovery of spilled product?
- Was contaminated equipment disposed promptly and safely?

- Was there adequate in-house product separation, recovery, and disposal?
- How could it have been improved?
- Was there adequate outside disposal resources available?

Command Structure

- Who was initially in charge of spill response?
- What sort of organization was initially set up?
- How did this change with time? Why?
- What changes would have been useful?
- Was there adequate surveillance?
- Should there be any changes?
- Were communications adequate?
- What improvements are needed? Hardware, procedures, etc.
- Was support from financial services adequate? Prompt?
- Should there be any changes?
- Is more planning needed?
- Should financial procedures be developed to handle such incidents?

Measurement

- Was there adequate measurement or estimation of the volume of product spilled?
- Was there adequate measurement or estimation of the volume of product recovered?
- Was there adequate measurement or estimation of the volume of product disposed?
- Should better measurement procedures be developed for either phase of operations?
- If so, what would be appropriate and acceptable?

Government Relations

- What are the roles and effects of the various government agencies which were involved?
- Was there a single focal point among the government agencies for contact?
- Should there have been better focus of communications to the agencies?
- Were government agencies adequately informed at all stages?
- Were too many agencies involved?
- Are any changes needed in procedures to manage government relations?
- Examples of affected U.S. agencies (there may be others):
    - U.S. Coast Guard
    - Environmental Protection Agency
    - National Oceanic and Atmospheric Administration
    - Dept of Fish and Wildlife
    - State Parks
    - Harbors and Marinas
    - States
    - Cities
    - Counties

- Was there adequate agreement with the government agencies on disposal methods?
- Was there adequate agreement with the government agencies on criteria for cleanup?
- How was this agreement developed?
- Were we too agreeable with the agencies in accepting their requests for specific action items (e.g., degree of cleanup)?
- Should there be advance planning of criteria for cleanup, aimed at specific local environmentally sensitive areas? (Such criteria should probably also be designed for different types of product.)

Public Relations

- How were relations with the media handled?
- What problems were encountered?
- Are improvements needed?
- How could public outcry have been reduced? Was it serious?
- Would it be useful to undertake a public information effort to "educate" reporters about product and effects to it if spilled?
- These areas should be investigated shortly after the incident to assure that actions taken are fresh in peoples' minds.

APPENDIX E

DISPOSAL PLAN

E.1 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 Disposal Specialist to manage waste disposal needs during an oil spill cleanup.

E.2 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.

E.3 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.

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.
- **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.

Figure E-3 provides a comparative evaluation of 16 types of transfer systems that could be available for transfer operations.

E.4 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 Figure E-1. 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.
- 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 mils 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 ere 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.

E.5 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 th/e 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.

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 Di po al Speciali t of the Company' Re pon e Team in the form of an Incident Di po al 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. Figure E-2 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 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.

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 Companyapproved disposal facilities. The Company's 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 Disposal Specialist prior to sending any waste to such a facility.

FIGURE E-1

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-Roll-offs	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.
Frac Tanks	x			x	Consider road access.

FIGURE E-2

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 and soil	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 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

FIGURE E-3

COMPARATIVE EVALUATION OF OIL SPILL TRANSFER SYSTEMS

CHARACTERISTICS OF TRANSFER SYSTEM	CENTRIFUGAL PUMP	LOBE PUMP	GEAR PUMP	INTERMESCHING 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 RATING 5=Best; 1=Worst

KEY TO COMMENTS

A. Normally require remote power source, 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.

APPENDIX F

MISCELLANEOUS FORMS

Forms and Exercise Documentation File Maintenance Procedures
• Forms and exercise documentation records should be maintained in a separate file in the Facility's office filing system. • These files must be available for presentation upon request by regulatory agency personnel.

Spill Management Team Tabletop Exercise

Click to view the file - Spill Management Team Tabeltop Exercise_26_6_2013_20_13_42.pdf

Railroad Commission of Texas Oil and Gas Division Crude Oil, Gas Well Liquids, or Associated Products Loss Report Form H-8

Click to view the file - Railroad Commission of Texas Oil and Gas Division Crude Oil, Gas Well Liquids, or Associated Products Loss Report Form H-8_26_6_2013_20_13_55.pdf

Post Drill Review-Evaluation for the Facility Response Plan

Click to view the file - Post Drill Review-Evaluation for the Facility Response Plan_26_6_2013_20_14_13.pdf

Threatening Phone Call Questions (Telephone Bomb Threat Checklist)

Click to view the file - Threatening Phone Call Questions (Telephone Bomb Threat Checklist)_26_6_2013_20_14_24.pdf

Kinder Morgan ICS Forms Workbook

Click to view the file - Kinder Morgan ICS Forms Workbook_26_6_2013_20_17_3.pdf

Notification Drill Form

Click to view the file - Notification Drill Form_26_6_2013_20_17_45.pdf

APPENDIX G

STATE REQUIREMENTS

G.1 State Requirements

G.1 State Requirements

A WCD for areas of the pipeline inside TGLO jurisdiction can be found on the following page.

APPENDIX H

MATERIAL SAFETY DATA SHEET(S)

Material Safety Data Sheets will be attached seperately and maintained for each area within the response zone.

Crude Oil MSDS

PlanFiles/PlanContent/KMCDEOSRP/Crude MSDS_26_6_2013_20_20_45.pdf

Click to view the file - Crude MSDS_26_6_2013_20_20_45.pdf

GLOSSARY OF TERMS AND ACRONYMS

GLOSSARY OF TERMS

This glossary contains definitions of terms that will be used frequently during the course of response operations.

Activate: The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.

Activator: An individual in the response organization whose responsibilities include notifying other individuals or groups within the organization to mobilize personnel and/or equipment.

Adverse Weather: The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice, temperature, weather - related visibility, and currents within the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.

Agency Representative: Individual assigned to an incident from an agency who has been delegated full authority to make decisions on all matters affecting that agency's participation in response operations.

Area Committee: As defined by Sections 311(a)(18) and (j)(4) of CWA, as amended by OPA, means the entity appointed by the President consisting of members from Federal, State, and local agencies with responsibilities that include preparing an Area Contingency Plan for the area designated by the President. The Area Committee may include ex-officio (i.e., non-voting) members (e.g., industry and local interest groups).

Area Contingency Plan: As defined by Sections 311(a)(19) and (j)(4) of CWA, as amended by OPA, means the plan prepared by an Area Committee, that in conjunction with the NCP, shall address the removal of a discharge including a worst-case discharge and the mitigation or prevention of a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President.

Average Most Probable Discharge: A discharge of the lesser of 50 barrels or 1% of the volume of the worst case discharge.

Barrel (bbl): Measure of space occupied by 42 U.S. gallons at 60 degrees Fahrenheit.

Bioremediation Agents: Means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Boom: A piece of equipment or a strategy used to either contain free floating oil to a confined area or protect an uncontaminated area from intrusion by oil.

Booming Strategies: Strategic techniques which identify the location and quantity of boom required to protect certain areas. These techniques are generated by identifying a potential spill source and assuming certain conditions which would affect spill movement on water.

Bulk: Material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

Chemical Agents: Means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the oil pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include solvents.

Clean-up Contractor: Persons contracted to undertake a response action to clean up a spill.

Cleanup: For the purposes of this document, cleanup refers to the removal and/or treatment of oil, hazardous substances, and/or the waste or contaminated materials generated by the incident. Cleanup includes restoration of the site and its natural resources.

Coastal Waters: For the purpose of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal Zone: As defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Group (DRG): As provided for by CWA sections 311(a)(20) and (j)(3), means the entity established by the Secretary of the department in which the USCG is operating within each USCG district and shall consist of: the combined USCG personnel and equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Command: The act of controlling manpower and equipment resources by virtue of explicit or delegated authority.

Command Post: A site located at a safe distance from the spill site where response decisions are made, equipment and manpower deployed, and communications handled. The Incident Commander and the On-Scene Coordinators may direct the on-scene response from this location.

Communications Equipment: Equipment that will be utilized during response operations to maintain communication between the Company employees, contractors, Federal/State/Local agencies. (Radio/ telephone equipment and links)

Containment Boom: A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.

Contingency Plan: A document used by (1) federal, state, and local agencies to guide their planning and response procedures regarding spills of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies occurring upon their vessels or at their facilities.

Contract or Other Approved Means: For OPA 90, a written contract with a response contractor; certification by the facility owner or operator that personnel and equipment are owned, operated, or under the direct control of the facility, and available within the stipulated times; active membership in a local or regional oil spill removal organization; and/or the facility's own equipment.

Critical Areas to Monitor: Areas which if impacted by spilled oil may result in threats to public safety or health.

Cultural Resources: Current, historic, prehistoric and archaeological resources which include deposits, structures, ruins, sites, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to the historical or prehistorical culture of people in the state as well as to the natural history of the state.

Damage Assessment: The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.

Decontamination: The removal of hazardous substances from personnel and their equipment necessary to prevent adverse health effects.

Discharge: Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Dispersants: Means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Diversion Boom: A floatation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert the product towards a pick up point, or away from certain areas.

Drinking Water Supply: As defined by Section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

EM: Emergency Management. Serves as the focal point for senior management support of an incident.

Economically Sensitive Areas: Those areas of explicit economic importance to the public that due to their proximity to potential spill sources may require special protection and include, but are not limited to: potable and industrial water intakes; locks and dams; and public and private marinas.

Emergency Management: The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Emergency Service: Those activities provided by state and local government to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.

Environmentally Sensitive Areas: Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or other areas protected or managed for its natural resource value.

Facility: Either an onshore facility or an offshore facility and includes, but is not limited to structures, equipment, and appurtenances thereto, used or capable of being used to transfer oil to or from a vessel or a public vessel. A facility includes federal, state, municipal, and private facilities.

Facility Operator: The person who owns, operates, or is responsible for the operation of the facility.

Federal Fund: The spill liability trust fund established under OPA.

Federal Regional Response Team: The federal response organization (consisting of representatives from selected federal and state agencies) which acts as a regional body responsible for planning and preparedness before an oil spill occurs and providing advice to the FOSC in the event of a major or substantial spill.

Federal Response Plan (FRP): Means the agreement signed by 25 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977 and the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988.

First Responders, First Response Agency: A public health or safety agency (e.g., fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.

Handle: To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.

Harmful Quantity Of Oil: The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen upon or discoloration of the surface of the water or a shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.

Hazardous Material: Any nonradioactive solid, liquid, or gaseous substance which, when uncontrolled, may be harmful to humans, animals, or the environment. Including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants.

Hazardous Substance: Any substance designed as such by the Administrator of the EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; regulated pursuant to Section 311 of the Federal Water Pollution Control Act, or discharged by the SERC.

Hazardous Waste: Any solid waste identified or listed as a hazardous waste by the Administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 U.S.C., Section 6901,et seq as amended. The EPA Administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in Title 40 of the Code of Federal Regulations, Part 261, Subparts C and D respectively.

HAZMAT: Hazardous materials or hazardous substances, exposure to which may result in adverse effects on health or safety of employees.

HAZWOPER: Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of response operations.

Heat Stress: Dangerous physical condition caused by over exposure to extremely high temperatures.

Hypothermia: Dangerous physical condition caused by over exposure to freezing temperatures.

Incident: Any event that results in a spill or release of oil or hazardous materials. Action by emergency service personnel may be required to prevent or minimize loss of life or damage to property and/or natural resources.

Incident Briefing Meeting: Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.

Incident Command Post (ICP): That location at which all primary command functions are executed.

Incident Command System (ICS): The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of assigned resources at an incident.

Incident Commander (IC): The one individual in charge at any given time of an incident. The Incident Commander will be responsible for establishing a unified command with all on-scene coordinators.

Indian Tribe: As defined in OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the Tribe.

Initial Cleanup: Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of cleanup increases significantly without timely remedial action. All sites must be evaluated to determine whether initial cleanup is total cleanup, however, this will not be possible in all cases due to site conditions (i.e., a site where overland transport or flooding may occur).

Initial Notification: The process of notifying necessary the Company personnel and Federal/ State/Local agencies that a spill has occurred, including all pertinent available information surrounding the incident.

Initial Response Actions: The immediate actions that are to be taken by the spill observer after detection of a spill.

Inland Area: The area shoreward of the boundary lines defined in 46 CFR part 7, except that in the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) as defined in §80.740 through 80.850 of this chapter. The inland area does not include the Great Lakes.

Inland Waters: State waters not considered coastal waters; lakes, rivers, ponds, streams, underground water, et. al.

Inland Zone: Means the environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Interim Storage Site: A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.

Lead Agency: The government agency that assumes the lead for directing response activities.

Lead Federal Agency: The agency which coordinates the federal response to incident on navigable waters. The lead federal agencies are:

- **U.S. Coast Guard:** Oil and chemically hazardous materials incidents on navigable waters.
- **Environmental Protection Agency:** Oil and chemically hazardous materials incidents on inland waters.

Lead State Agency: The agency which coordinates state support to federal and/or local governments or assumes the lead in the absence of federal response.

Loading: Transfer from Facility to vehicle.

Local Emergency Planning Committee (LEPC): A group of local representatives appointed by the State Emergency Response Commission (SERC) to prepare a comprehensive emergency plan for the local emergency planning district, as required by the Emergency Planning and Community Right-to-know Act (EPCRA).

Local Response Team: Designated Facility individuals who will fulfill the roles determined in the oil spill response plan in the event of an oil or hazardous substance spill. They will supervise and control all response and clean-up operations.

Lower Explosive Limit: Air measurement utilized to determine the lowest concentration of vapors that support combustion. This measurement must be made prior to entry into a spill area.

Marinas: Small harbors with docks, services, etc. for pleasure craft.

Medium Discharge: Means a discharge greater than 2,100 gallons (50 Bbls) and less than or equal to 36,000 gallons (85+ Bbls) or 10% of the capacity of the largest tank, whichever is less and not to exceed the WCD.

National Contingency Plan: The plan prepared under the Federal Water Pollution Control Act (33 United State Code §1321 et seq) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 United State Code § 9601 et seq), as revised from time to time.

National Pollution Funds Center (NPFC): Means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund (OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Response System (NRS): Is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Area Committees, and Special Teams and related support entities.

National Strike Force (NSF): Is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team (PIAT), and the National Strike Force Coordination Center. The NSF is available to assist OSCs in their preparedness and response duties.

National Strike Force Coordination Center (NSFCC): Authorized as the National Response Unit by CWA section 311(a)(23) and (j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina, with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

Natural Resource: Land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the state, federal government, private parties, or a municipality.

Navigable Waters: As defined by 40 CFR 110.1 means the waters of the United States, including the territorial seas. The term includes:

All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

Interstate waters, including interstate wetlands;

All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

- that are or could be used by interstate or foreign travelers for recreational or other purposes;
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; and
- that are used or could be used for industrial purposes by industries in interstate commerce.

All impoundments of waters otherwise defined as navigable waters under this section;

Tributaries of waters identified in paragraphs (a) through (d) of this definition, including adjacent wetlands; and

Wetlands adjacent to waters identified in paragraphs (a) through (e) of this definition: Provided, that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act jurisdiction remains with EPA.

Nearshore Area: For OPA 90, the area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation defined in §80.740 - 80.850 of title 33 of the CFR.

Non-persistent or Group I Oil: A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

1. At least 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F);
2. At least 95% of which volume, distill at a temperature of 370 degrees C (700 degrees F).

Ocean: The open ocean, offshore area, and nearshore area as defined in this subpart.

Offshore area: The area up to 38 nautical miles seaward of the outer boundary of the nearshore area.

Oil or Oils: Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil, diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil does not include any substance listed in Table 302.4 of 40 CFR Part 302 adopted August 14, 1989, under Section 101(14) of the federal comprehensive environmental response, compensation, and liability act of 1980, as amended by P. L. 99-499.

Oil Spill Liability Trust Fund: Means the fund established under section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

Oily Waste: Product contaminated waste resulting from a spill or spill response operations.

On-Scene Coordinator (OSC): Means the federal official predesignated by the EPA or the USCG to coordinate and direct response under subpart D.

On-site: Means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action.

Open Ocean: Means the area from 38 nautical miles seaward of the outer boundary of the nearshore area, to the seaward boundary of the exclusive economic zone.

Owner or Operator: Any person, individual, partnership, corporation, association, governmental unit, or public or private organization of any character.

Persistent Oil: A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:
1. Group II specific gravity less than .85
2. Group III specific gravity between .85 and less than .95
3. Group IV specific gravity .95 and including 1.0
4. Group V specific gravity greater than 1.0

Plan Holder: The plan holder is the industry transportation related facility for which a response plan is required by federal regulation to be submitted by a vessel or facility's owner or operator.

Post Emergency Response: The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the sites has begun.

Post Emergency: The phase of response operations conducted after the immediate threat of the release has been stabilized, and cleanup operations have begun.

Primary Response Contractors or Contractors: An individual, company, or cooperative that has contracted directly with the plan holder to provide equipment and/or personnel for the containment or cleanup of spilled oil.

Qualified Individual (QI): That person or entity who has authority to activate a spill cleanup contractors, act as liaison with the "On-Scene Coordinator" and obligate funds required to effectuate response activities.

Recreation Areas: Publicly accessible locations where social/sporting events take place.

Regional Response Team (RRT): The Federal response organization (consisting of representatives from selected Federal and State agencies) which acts as a regional body responsible for overall planning and preparedness for oil and hazardous materials releases and for providing advice to the OSC in the event of a major or substantial spill.

Remove or Removal: As defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare (including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove discharge.

Response Activities: The containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, or the taking of other actions as necessary to minimize or mitigate damage to public health or welfare, or the environment.

Response Contractors: Persons/companies contracted to undertake a response action to contain and/or clean up a spill.

Response Guidelines: Guidelines for initial response that are based on the type of product involved in the spill, these guidelines are utilized to determine clean-up methods and equipment.

Response Plan: A practical manual used by industry for responding to a spill. Its features include: (1) identifying the notifications sequence, responsibilities, response techniques, etc. in an easy to use format; (2) using decision trees, flowcharts, and checklists to insure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from data required by regulatory agencies to prevent confusion during a spill incident.

Response Priorities: Mechanism used to maximize the effective use of manpower and equipment resources based upon their availability during an operational period.

Response Resources: All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Responsible Party: Any person, owner/operator, or facility that has control over an oil or hazardous substance immediately before entry of the oil or hazardous substance into the atmosphere or in or upon the water, surface, or subsurface land of the state.

Restoration: The actions involved in returning a site to its former condition.

Rivers and Canals: A body of water confined within the inland area that has a project depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

Securing the Source: Steps that must be taken to stop discharge of oil at the source of the spill.

Sinking Agents: Means those additives applied to oil discharges to sink floating pollutants below the water surface.

Site Characterization: An evaluation of a cleanup site to determine the appropriate safety and health procedures needed to protect employees from identified hazards.

Site Conditions: Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.

Site Safety and Health Plan: A site specific plan developed at the time of an incident that addresses:

- Safety and health hazard analysis for each operation.
- Personal protective equipment to be used.
- Training requirements for site workers.
- Medical surveillance requirements.
- Air monitoring requirements.
- Site control measures.
- Decontamination procedures.
- Emergency response procedures.
- Confined space entry procedures.

(b) (7)(F)

Skimmers: Mechanical devices used to skim the surface of the water and recover floating oil. Skimmers fall into four basic categories (suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices) which vary in efficiency depending on the type of oil and size of spill.

Snare Boom: Oil will adhere to the material of which this boom is made of and thus collect it.

Sorbents: Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.

Spill: An unauthorized discharge of oil or hazardous substance into the waters of the state.

Spill Observer: The first Facility individual who discovers a spill. This individual must function as the first responder and person-in-charge until relieved by an authorized supervisor.

Spill of National Significance (SONS): Means a spill which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup the discharge.

Spill Management Team: The personnel identified to staff the organizational structure identified in a response plan to manage response plan implementation.

Spill Response: All actions taken in responding to spills of oil and hazardous materials, e.g.: receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.

Spill Response Personnel: Federal, state, local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be pre-approved on a list maintained in each region.

Staging Areas: Designated areas near the spill site accessible for gathering and deploying equipment and/or personnel.

State Emergency Response Commission(SERC): A group of officials appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Re-authorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Surface Collecting Agents: Means those chemical agents that form a surface film to control the layer thickness of oil.

Surface Washing Agent: Is any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column.

Tanker: A self-propelled tank vessel constructed or adapted primarily to carry or hazardous material in bulk in the cargo spaces.

Tidal Current Tables: Tables which contain the predicted times and heights of the high and low waters for each day of the year for designated areas.

Trajectory Analysis: Estimates made concerning spill size, location, and movement through aerial surveillance or computer models.

Transfer: Any movement of oil to, from, or within a vessel by means of pumping, gravitation, or displacement.

Trustee: Means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 1006 of the OPA.

Underwriter: An insurer, a surety company, a guarantor, or any other person, other than an owner or operator of a vessel or facility, that undertakes to pay all or part of the liability of an owner or operator.

Unified Command: The method by which local, state, and federal agencies and the responsible party will work with the Incident Commander to:

- Determine their roles and responsibilities for a given incident.
- Determine their overall objectives for management of an incident.
- Select a strategy to achieve agreed-upon objectives.
- Deploy resources to achieve agreed-upon objectives.

Unified or Coordinated Command Meeting: Held to obtain agreement on strategic objectives and response priorities; review tactical strategies; engage in joint planning, integrate response operations; maximize use of resources; and minimize resolve conflicts.

Volunteers: An individual who donates their services or time without receiving monetary compensation.

Waste: Oil or contaminated soil, debris, and other substances removed from coastal waters and adjacent waters, shorelines, estuaries, tidal flats, beaches, or marshes in response to an unauthorized discharge. Waste means any solid, liquid, or other material intended to be disposed of or discarded and generated as a result of an unauthorized discharge of oil. Waste does not include substances intended to be recycled if they are in fact recycled within 90 days of their generation or if they are brought to a recycling facility within that time.

Waters of the United States: See **Navigable Waters** in this Glossary.

Wetlands: Those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds (40 CFR 112.2(y)).

Wildlife Rescue: Efforts made in conjunction with Federal and State agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.

Worst Case Discharge: The largest foreseeable discharge under adverse weather conditions. For facilities located above the high water line of coastal waters, a worst case discharge includes those weather conditions most likely to cause oil discharged from the facility to enter coastal waters.

ACRONYMS

AMIO	-	Alien Migration Interdiction Operation
AQI	-	Alternate Qualified Individual
AM	-	Ante Meridiem
ACP	-	Area Contingency Plan
ACP	-	Area Contingency Plans
Avg.	-	Average
bbl/hr	-	Barrel per Hour
Br	-	Branch
BLM	-	Bureau of Land Management
COTP	-	Captain of the Port
Ctr.	-	Center
CAS Number	-	Chemical Abstracts Service
CST	-	Civil Support Team
CG	-	Coast Guard
CFR	-	Code of Federal Regulations
Cont'd	-	Continued
CMT	-	Crisis Management Team
DOA	-	Dead on Arrival
Dept.	-	Department
DOD	-	Department of Defense
DENR	-	Department of Environment and Natural Resources
DHS	-	Department of Homeland Security
DOI	-	Department of Interior
DNR	-	Department of Natural Resources
DOT	-	Department of Transportation
Div.	-	Division
DOCL	-	Documentation Unit Leader
EMS	-	Emergency Management System
EM	-	Emergency Manager
EOC	-	Emergency Operations Center
ESA	-	Endangered Species Act
EET	-	Environmental Emergency Team
EDRC	-	Estimated Daily Recovery Capability
EPA	-	Environmental Protection Agency
ETA	-	Estimated Time of Arrival
etc.	-	Et Cetera
exempli gratia e.g.	-	For Example
FAA	-	Federal Aviation Administration
FBI	-	Federal Bureau of Investigation
FOSC	-	Federal On-Scene Coordinator
Ft./Sec.	-	Feet/Second
FIR	-	Field Investigation Report
FR	-	Fire Retardant
FWD	-	Forward
Freq.	-	Frequency
GRP	-	Group
Gru Sups.	-	Group Supervisors
HAZMAT	-	Hazardous Material
HAZWOPER	-	Hazardous Waste Operations and Emergency Response Standard
HVAC	-	Heating, Ventilating, and Air Conditioning
HEPA	-	High Efficiency Particle Air Device
HF ERW	-	High Frequency Electric-Resistance Weld
HLS	-	Homeland Security
Hrs.	-	Hours
ID NO.	-	Identification Number
IAW	-	In Accordance With

IAP	-	Incident Action Plan
ICS	-	Incident Command System
ICS	-	Incident Command System
IC	-	Incident Commander
IMH	-	Incident Management Handbook
IMS	-	Incident Management System
Info.	-	Information
KM	-	Kilometer
KP	-	Kilometer Point
LE	-	Law Enforcement
LO	-	Liaison Officer
LPG	-	Liquefied Petroleum Gas
LEPC	-	Local Emergency Planning Committee
LRT	-	Local Response Team
LSC	-	Logistics Section Chief
LF ERW	-	Low Frequency Electric-Resistance Weld
LEL	-	Lower Explosive Limit
MSDS	-	Material Safety Data Sheets
MEDEVAC'D	-	Medical Evacuation
NCP	-	National Contingency Plan
NEECP (CA)	-	National Environmental Emergencies Contingency Plan
NFPA	-	National Fire Protection Association
NIMS	-	National Incident Management System
NOAA	-	National Oceanographic Atmospheric Administration
NCP (U.S.)	-	National Oil and Hazardous Substances Contingency Plan
NRC	-	National Response Center
NRDAR	-	Natural Resource Damage Assessment and Restoration
N	-	No
NW	-	North West
N/A	-	Not Available
OSHA	-	Occupational Safety & Health Administration
OSRO	-	Oil Spill Removal Organization
OSRP	-	Oil Spill Response Plan
OSRV	-	Oil Spill Response Vessel
OSC	-	On-Scene Coordinate
OSC	-	Operation Section Chief
OP	-	Operational Period
Op.	-	Operations
OPS	-	Operations
O&M	-	Operations and Maintenance
OCC	-	Operations Coordination Center
OV	-	Organic Vapor
PPM	-	Parts Per Million
PFD	-	Personal Floatation Device
PPE	-	Personal Protective Equipment
PHMSA	-	Pipeline and Hazardous Materials Safety Administration
PSC	-	Planning Section Chief
PSC	-	Planning Section Chief
POC	-	Point of Contact
PVC	-	Polyvinyl Chloride
P.M.	-	Post Meridiem
PREP	-	Preparedness for Response Exercise Program
Prot.	-	Protection
PWSD	-	Public Water Supply District
QI	-	Qualified Individual
RPT	-	Regional Preparedness Team
Req.	-	Required
RCRA	-	Resource Conservation and Recovery Act

RESL	-	Resource Leader
RP	-	Responsible Party
RPIC	-	Responsible Party Incident Commander
Rev.	-	Revision
R/W	-	Right-of-Way
RWD	-	Rural Water District
SAR	-	Search and Rescue
SART	-	Search and Rescue Transporter
SI	-	Security Incident
SO	-	Security Officer
SCBA	-	Self Contained Breathing Apparatus
SSPs	-	Site Safety Plans
SITL	-	Situation Unit Leader
Spec.	-	Special
SPCC	-	Spill Prevention, Control, and Countermeasure
SORS	-	Spilled oil Recovery System
Sq. Ft.	-	Square Foot
STAM	-	Staging Area Manager
SERC	-	State Emergency Response Center
SERC	-	State Emergency Response Commission
SOSC	-	State On-Scene Coordinator
SOR	-	Statutory Orders and Regulations
SCADA	-	Supervisory Control and Data Acquisition
TOC	-	Table of Contents
TSD	-	Temporary Storage and Disposal
TSC	-	Temporary Storage Capacity
id est, I.E.	-	That is
TBA	-	To be Assigned
TSB	-	Transportation Safety Board
TWIC	-	Transportation Worker Identification Credential
UC	-	Unified Command
UN Number	-	United Nations
US	-	United States
USCG	-	United States Coast Guard
USN	-	US Navy Supervisor Salvage
Vsl.	-	Vessel
VOSS	-	Vessel of Opportunity Skimmer System
VOC	-	Volatile Organic Compound
Vol.	-	Volume
W	-	West
WCD	-	Worst Case Discharge
Y	-	Yes

REGULATORY CROSS REFERENCE

DOT/PHMSA 49 CFR Part 194 Cross Reference

DOT/PHMSA 49 CFR PART 194		
§ 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	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.	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…	§ 4.0
(b)(1)(ii)	Establish provisions to ensure the protection of safety at the response site; and	§ 4.0 (Command), § 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, App. 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, 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	§4.0
(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,	Fig 2.5, App A
(c)(1)(v)	Response activities and response resources,	§ 3.0, App A

DOT/PHMSA 49 CFR PART 194		
§ 194.107	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(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)(viii)	Equipment testing,	App D.2
(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 PHMSA will determine if the program is equivalent to PREP.	App D.2
(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.	Response Zone Annexes, App. B
(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.	§ 4.0
§ 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, Response Zone Annexes
(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);	Response Zone Annexes
(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, Response Zone Annexes
(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
(b)(6)	The type of oil and volume of the worst case discharge.	App B

DOT/PHMSA 49 CFR PART 194		
§ 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	
(a)(1)(ii)	The name and address of, and the procedure for contacting, the operator on a 24-hour basis	Figure 1.1, § 2.0
(a)(1)(iii)	The name of, and procedures for contacting, the qualified individual on a 24-hour basis	Response Zone Annexes
(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 2.5
(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	Fig 3.2
(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. Theses records must be maintained in the following manner as long as the individual is assigned duties under the response plan	App D.1
(b)(1)	Records for operator personnel must be maintained at the operator's headquarters	App D.1
(b)(2)	Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator.	App D.1
(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.1
§ 194.119	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(a)	Each owner shall submit two copies...	Distribution List
(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...	-----

DOT/PHMSA 49 CFR PART 194		
§ 194.121	**BRIEF DESCRIPTION**	**LOCATION IN PLAN**
(a)	Each operator shall update its response plan to address new or different operating conditions or information. In addition, each operator shall review its response plan in full at least every 5 years from the date of the last submission or the last approval as follows:	§ 1.5
(a)(1)	For substantial harm plans, an operator shall resubmit every 5 years from the last approval date.	§ 1.5
(a)(2)	For significant and substantial harm plans, an operator shall resubmit every 5 years form the last approval date.	§ 1.5
(b)	If a new or different operating condition or information would substantially affect the implementation of a response plan, the operator must immediately modify its response plan to address such a change…	§ 1.4
(b)(1)	An extension of the existing pipeline or construction of a new pipeline in a response zone not covered by the previously approved plan;	§ 1.4
(b)(2)	Relocation or replacement of the pipeline in a way that substantially affects the information included in the response plan, such as a change to the worst case discharge volume;	§ 1.4
(b)(3)	The type of oil transported, if the type affects the required response resources, such as a change from crude oil to gasoline;	§ 1.4
(b)(4)	The name of the spill removal organization;	§ 1.4
(b)(5)	Emergency response procedures;	§ 1.4
(b)(6)	The qualified individual;	§ 1.4
(b)(7)	A change in the NCP or an ACP that has significant impact on the equipment appropriate for response activities; and	§ 1.4
(b)(8)	Any other information relating to circumstances that may affect full implementation of the plan.	§ 1.4
(c)	If PHMSA determines that a change to a response plan does not meet the requirements of this part, PHMSA will notify the operator of any alleged deficiencies, and provide operator…opportunity to correct deficiencies.	-----
(d)	An operator who disagrees with a determination that proposed revisions to a plan are deficient may petition PHMSA for reconsideration, within 30 days from the date of receipt of PHMSA's notice…	-----

RESPONSE ZONE INFORMATION

Double Eagle Response Zone

RESPONSE ZONE CONTACT INFORMATION

Owner Name:	Kinder Morgan
Addresses:	Physical Address 1001 Louisiana Street, Suite 1000 Houston,Texas 77002
24 Hour Emergency Contact Phone Numbers:	(800) 265-5000 (24 Hours)
Telephone/Fax:	Telephone references, including 24 hour numbers, for the Facility, Owner, and Qualified Individual/Alternate Qualified Individual are provided in Figure 2.2.
States Traversed:	Texas
Areas/Counties Traversed:	Bee, Karnes, La Salle, Live Oak, McMullen, Nueces, San Patricio

INFORMATION SUMMARY

Determination of Significant and Substantial Harm (United States Department of Transportation/Pipeline and Hazardous Materials Safety Administration):

This Response Zone has been determined to meet the significant and substantial harm classification because at least one (1) line section within the response zone has met at least one of the criteria listed in 49CFR194.103(c)(1).

Worst Case Discharge(Refer to Appendix B for calculations):

Potential Oil Group:	3
United States Department of Transportation/Pipeline and Hazardous Materials Safety Administration Planning Volume:	(b) (7)(F)

Area: Double Eagle Response Area

Qualified Individuals

NAME	OFFICE	HOME	CELL
Jim Doss	(713) 420-3585	(b) (6)	(281) 414-0138

Alternate Qualified Individuals

NAME	OFFICE	HOME	CELL
Gary Brothers	(281) 622-1363	(b) (6)	(281) 622-1363

Response Zone Company Contacts

POSITION/TITLE	NAME	OFFICE	HOME	CELL
Director-Operations	Jim Doss	(713) 420-3585	(b) (6)	(281) 414-0138
Manager-Operations	Gary Brothers	(281) 622-1363		(281) 622-1363
Supervisor-Ops. Three Rivers, TX	Seth Strause	(713) 420-3219		(713) 254-9484
Supervisor-Operations Cotulla, Texas	BJ Palumbo	(830) 879-4677 ext 4610		(956) 763-0222
Operations Specialist	Hayden Hayes	(361) 436-0839		(361) 436-0839
Operations Specialist	Herman Kunze	(713) 420-3212		(361) 436-0485

Pipeline Specifications			
Location	**Type of Oil**	**State**	**County**
Segment #1 Gardedale Leg (MP0-MP85)	Crude	Texas	Live Oak, La Salle, McMullen
Segment #2 Karnes Leg (MP0-MP37.2)	Crude	Texas	Live Oak, Karnes, Bee
Segment #3 Three Rivers to Corpus Christi (MP0-MP73)	Crude	Texas	Live Oak, Nueces, Bee, San Patricio

Company Owned Response Equipment		
NAME	**LOCATION**	**DESCRIPTION**
Sorbent Boom, 2012	Terminal Shop	1 bag - 4"x10' lengths
Kitty Litter (Chemical), 2012	Terminal Shop	1 Pallet (50 - 50 lb bags)
Sorbent Pads	Terminal Shop	4 Bundles
Shovels	Terminal Shop	4
Cell Phones	On Person	All Terminal and Pipeline Personnel
20 lb Portable Fire Extinguishers, 2012	Terminal	7
150 lb Fire Extinguisher	Terminal	1
Spill Kits	Truck Rack, Charge Pump, ML Pumps, Meter Skid	4

(b) (7)(F)

EXTERNAL NOTIFICATION REFERENCES
Texas

LOCAL EMERGENCY SERVICES NOTIFICATIONS			
COUNTY	**AGENCY**	**LOCATION**	**OFFICE/ ALTERNATE**
**** Additional reporting information may be contained in the Document Library under Other Documents.***			
Live Oak	George West City Fire Department	George West,Texas	(361) 449-2271
Live Oak	George West City Police Department	George West,Texas	(361) 449-3800
Live Oak	Guardian EMS - George West	George West,Texas	(361) 449-3540
Live Oak	Live Oak County Sheriff	George West,Texas	(361) 449-2271
Live Oak	Southern Cross Ambulance	Bee and Live Oak Counties,Texas	(800) 469-0911 / (830) 629-2920
Live Oak	Three Rivers Fire Department	Three Rivers,Texas	(361) 786-2528
Live Oak	Three Rivers Police Department	Three Rivers,Texas	(361) 786-2743
Nueces	Nueces County Emergency Services District No. 4	Corpus Christi,Texas	(361) 387-4066
Nueces	Nueces County EMS (METROCOM)	Corpus Christi,Texas	(361) 826-2900
Nueces	Nueces County Sheriff	Corpus Christi,Texas	(361) 887-2222
Nueces	Portland Fire Department	Portland,Texas	(361) 643-0155
Nueces	Portland Police Department	Portland,Texas	(361) 777-4444
La Salle	Cotulla City Fire Department	Cotulla,Texas	(830) 879-3041
La Salle	La Salle County Ambulance	Cotulla,Texas	(830) 879-3041
La Salle	La Salle County Sheriff	Cotulla,Texas	(830) 879-3041 (Disptach)
McMullen	McMullen County EMS	Tilden,Texas	(361) 274-3213
McMullen	McMullen County Sheriff	Tilden,Texas	(361) 274-3311
McMullen	McMullen County Volunteer Fire Department	Tilden,Texas	(830) 570-9952 (Chief Jason Cooper)
Karnes	Kaiser Memorial Hospital	Kenedy,Texas	(830) 583-3401
Karnes	Karnes City Volunteer Fire Dept.	Karnes City,Texas	(830) 780-2320

LOCAL EMERGENCY SERVICES NOTIFICATIONS (Cont'd)			
COUNTY	**AGENCY**	**LOCATION**	**OFFICE/ ALTERNATE**
**** Additional reporting information may be contained in the Document Library under Other Documents.***			
Karnes	Karnes County EMS	Kenedy,Texas	(830) 583-3877 / (830) 583-5145 (EMS Director)
Karnes	Karnes County Sheriff's Office	Karnes City,Texas	(830) 780-3931
Karnes	Texas Regional EMS	Karnes City,Texas	(830) 583-3186
Bee	Bee County 911	Beeville,Texas	(361) 362-3221
Bee	Bee County Sheriff	Beeville,Texas	(361) 362-3221
Bee	Beeville Volunteer Fire Department	Beeville,Texas	(361) 362-7609
Bee	Christus Spohn Hospital	Beeville,Texas	(361) 354-2000
Bee	Skidmore Volunteer Fire Department	Skidmore,Texas	(361) 287-3747
Bee	Tynan Volunteer Fire Department	Tynan,Texas	(361) 547-9729
San Patricio	Odem EMS	Odem,Texas	(361) 368-7555
San Patricio	Odem Fire Department	Odem,Texas	(361) 368-2091
San Patricio	Papalote Volunteer Fire Department	Sinton,Texas	(361) 287-3399
San Patricio	San Patricio County 911	Sinton,Texas	(361) 364-9600 / (361) 364-9655
San Patricio	San Patricio Sheriff	Odem,Texas	(361) 364-2251
San Patricio	Sinton Fire Department	Sinton,Texas	(361) 364-2381
San Patricio	Tri-County Emergency Medical Services	Ingleside,Texas	(361) 776-0025