OIL SPILL RESPONSE PLAN

Valero MKS Logistics, L.L.C.

Memphis Area Pipelines

Prepared for:

Valero Partners Operating Co. LLC
One Valero Way
San Antonio, TX 78249

Prepared by:

Witt O'Brien's
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Houston, TX 77024
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www.wittobriens.com

ACKNOWLEDGMENT AND PLAN APPROVAL

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

The information and procedures contained herein are considered to be accurate as of this date and are consistent with the National Contingency Plan (NCP) and applicable Area Contingency Plans (ACP) as detailed in Section 1.5. (Requirement: 49 CFR § 194.107 (b))

Plan Approved:

Date: 6-10-10

NOTE: Response Management Associates, Inc. (RMA) provided consulting and plan development services in the preparation of this plan utilizing data provided by the Company and/or the Facility. RMA 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.

FACILITY RESPONSE CAPABILITY CERTIFICATION
Pursuant to 49 CFR 194.119(e)
FRP – DOT Tracking No. **1601**
The undersigned, the owner or operator of the above referenced facility who is authorized to sign this certification on behalf of this facility, hereby certifies that the above referenced facility has ensured by contract or other acceptable means approved by the President the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge or a substantial threat of such a discharge.

Name: Andy Szabo

Title: Senior Area Manager

Signature: 

Date: 6-10-10

OPERATOR'S STATEMENT – SIGNIFICANT AND SUBSTANTIAL HARM

FACILITY NAME: Valero Partners Operating Co. LLC
FACILITY ADDRESS: 543 West Mallory Avenue
Memphis, TN 38109

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 _____

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

   YES _____ NO ✓

2. Has any line section experienced two or more reportable releases, as defined in Sec. 195.5, within the previous five years? or

   YES _____ NO ✓

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

   YES _____ NO ✓

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

   YES _____ NO ✓

5. 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 _____

Based on the Pipeline Facility having breakout tanks and sections of line that are greater than 6 and 5/8 inches (168mm) and longer than 10 miles (16.1Km) in length, which are located within 1 mile (1.6KM) of environmentally sensitive areas, the Pipeline Facility is identified as a "Significant and Substantial Harm Facility".

Signature — Senior Area Manager (Title)

Andy Szabo (Name (please type or print)) — 6-10-10 (Date)

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	REMOVE	INSERT	DESCRIPTION OF CHANGE(S)
	PAGE NUMBER(S)		
November 2007		ALL	
June 2010	Entire Foreword, TOC-i, TOC-ii, 1-7, 1-8, 1-10 thru 1-12, 2-2, 2-3, 3-16 thru 3-23, 4-2, A-7, A-12 & inserts, A-13 & insert, B-3, Cross Reference-1	Entire Foreword, TOC-i, TOC-ii, 1-7, 1-8, 1-10 thru 1-12 & inserts, 2-2, 2-3, 3-16 thru 3-20, 4-2, A-7, A-12 & inserts, B-3, Cross Reference-1, Cross Reference-6	Miscellaneous revisions
September 2013	FWD Cover, FWD-iv thru vi, TOC-i, 1-1, 1-7, 2-1, 2-3 thru 2-18, 3-11, A-1, A-11, D-1, G-2	FWD Cover, FWD-iv thru vi, TOC-i, 1-1, 1-7, 2-1, 2-3 thru 2-17, 3-11, A-1, A-11 & insert, D-1, G-2	Company name change and misc. revisions
January 2014	FWD-v, TOC-i, TOC-iii, 1-2, 1-8, B-3, B-4, App C, Cross Ref-2	FWD-v, TOC-i, TOC-iii, 1-2, 1-8, B-3, B-4, App C, Cross Ref-2	Response to PHMSA Letter of Correction dated December 3, 2013

DISTRIBUTION LIST

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

COPY NUMBER	PLAN HOLDER (Entire Plan)	LOCATION
1	Valero Partners Operating Co. LLC Collierville Station 772 Wingo Road Byhalia, MS 38611	Byhalia, MS
2	Valero Partners Operating Co. LLC Control Center One Valero Way San Antonio, TX 78249	San Antonio, TX
3	Valero Partners Operating Co. LLC Hartford Distribution Center Attn: Andy Szabo 321 Mallory Avenue Memphis, TN 38109	Memphis, TN
4	Valero Partners Operating Co. LLC HSE Department Attn: Leroy Anderson One Valero Way San Antonio, TX 78249	San Antonio, TX
5	Valero Partners Operating Co. LLC Regulatory Compliance Department Attn: Leroy Anderson One Valero Way San Antonio, TX 78249	San Antonio, TX
6, 7 (electronic)	Melanie Barber Response Plan Officer Pipeline and Hazardous Materials Safety Administration U.S. Department of Transportation Office of Pipeline Safety 1200 New Jersey Avenue, SE-E-22-321 Washington, DC 20590	Washington, DC
8	Witt O'Brien's 818 Town & Country Blvd., Suite 200 Houston, TX 77024	Houston, TX

TABLE OF CONTENTS

Regulatory Cross-references are included in Appendix A of this Plan.

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APPENDICES

1.0 INTRODUCTION AND PLAN CONTENT

1.1 PLAN PURPOSE/OBJECTIVES

The purpose of this Oil Spill Response Plan (hereinafter referred to as "Plan") is to assist Valero Partners Operating Co. LLC Memphis Area Pipelines (hereinafter referred to as “Pipeline Facility”) personnel prepare for and respond quickly and safely to a discharge originating from the Facility. The Plan provides techniques and guidelines for achieving an efficient, coordinated and effective response to a discharge incident which may occur at the Pipeline Facility.

The specific objectives of the Plan are to:

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

1.2 SCOPE OF PLAN

This Plan contains prioritized procedures for the Pipeline Facility personnel to mitigate or prevent any discharge resulting from operations. Facility spill mitigation procedures and response guidelines are provided in Section 3.0 for discharges that could result from any of the following scenarios:

- Tank overfill/failure
- Piping rupture/leak
- Explosion and/or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, etc.)

1.2 SCOPE OF PLAN (Cont'd)

These scenarios could result in the following discharge volumes:

PHMSA Planning Volumes
Memphis Area
(b) (7)(F) [redacted]

The worst case discharge volume is utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified in Appendix B. Appendix B of this Plan demonstrates a series of calculations and planning volume determinations based on the regulation. The inclusion of these calculations (Appendix B) is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios outlined in the table above.

1.3 PLAN DISTRIBUTION PROCEDURES

The Environmental Specialist shall have the responsibility for distribution of the Plan. Distribution will be handled in the following manner:

- Distribution of the Plan is controlled by the number on the front cover. A Distribution List is included in the Foreword to facilitate control.
- Company personnel who may be called upon to provide assistance during discharge response activities will have access to a copy of the Plan for their use and training.
- It is the responsibility of any person holding a copy of the Plan to ensure that the copy is transferred to their replacement in the event of reassignment or change in responsibility.
- PHMSA's Office of Pipeline Safety will also be distributed a copy of the Plan as noted in the Distribution List located in the Foreword.

1.4 PLAN REVIEW AND UPDATE PROCEDURES

Annual Review/Update

Operations Services will coordinate with Pipeline Management Support to implement the following Plan review and update procedures.

- At least once each year, review and make appropriate revisions as required by operational or organizational changes.
- At least once each year, review and make appropriate revisions as required by changes in the names and telephone numbers detailed in Section 2.0.
- The Environmental Specialist will coordinate the word processing, publication, and distribution efforts of completing the revisions and maintaining the Plan.
- Plan review opportunities may occur during Response Team Tabletop Exercises or actual emergency responses that includes:
  - Post-drill or incident evaluations
  - Follow-up changes to be implemented
  - Time table for implementation

Incorporation of Plan Revisions

The **Plan Holder**, immediately upon receipt of any revisions, shall:

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

Agency Revision Requirements

The Pipeline Facility shall revise and resubmit revised portions of the Plan for each change that may materially affect the response to a Worst Case Discharge, including:

CONDITIONS REQUIRING CHANGES	DOT/PHMSA
Relocation or replacement of portions of the Facility (including the pipeline) which in any way substantially affect the information included in this Plan, such as a change to the worst case discharge volume.	✓
Emergency response procedures.	✓
A change in the listings of economically important or environmentally sensitive areas identified in the applicable ACP in effect six (6) months prior to the Plan review.	✓
Change in the Facility's configuration that materially alters the information included in the Plan.	✓
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).	✓
Material change in capabilities of the Oil Spill Removal Organization(s) (OSROs) that provide equipment and personnel.	✓
Material change in the Facility's spill prevention and response procedures.	✓
A change in the name of 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.	✓

1.4 PLAN REVIEW AND UPDATE PROCEDURES (Cont'd)

NOTE: The Office of Pipeline Safety (OPS) may require revisions to this Plan at any time if deficiencies are found under their applicable regulations or during an actual response.

Submission of Revisions

When submitting revisions to the applicable agencies, always include the Facility identification number (see Figure 1.1) with the revisions. The applicable agencies require revisions to be submitted as follows:

- **DOT/PHMSA –** The Facility shall revise and resubmit changes to the Pipeline Response Plans Officer within 30 days. The operator will review the Plan in full at last every five years from the date of the last approval date and resubmit the Plan to the OPS.

1.5 REGULATORY COMPLIANCE

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

- Federal Oil Pollution Act of 1990: U.S. DOT Final Rule for Transportation Related On-Shore Facilities as published in 49 CFR Part 194.

The applicable Area Contingency Plans for the Facility are:

- EPA Region 4 – Regional Contingency Plan
- EPA Region 6 – Regional Integrated Contingency Plan
- USCG - Sector Lower Mississippi River Area Contingency Plan

The applicable National Contingency Plan for the Facility is:

- U.S. Environmental Protection Agency; National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule.

1.6 DISCHARGE CLASSIFICATION

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

1.6 DISCHARGE CLASSIFICATION (Cont'd)

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

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

1.6 DISCHARGE CLASSIFICATION (Cont'd)

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

FIGURE 1.1

INFORMATION SUMMARY

GENERAL INFORMATION		
Pipeline Name:	Memphis Area Pipelines	
OPS Sequence Number(s):	1601	
	Physical Address	Mailing Address
Owner:	Valero MKS Logistics, L.L.C. (a Valero Company) One Valero Way San Antonio, TX 78249	Valero MKS Logistics, L.L.C. (a Valero Company) P.O. Box 69600 San Antonio, TX 78269-6000
Operator:	Valero Partners Operating Co. LLC (a Valero Company) 772 Wingo Road Byhalia, MS 78611	Valero Partners Operating Co. LLC (a Valero Company) 772 Wingo Road Byhalia, MS 78611
24 Hour Emergency Contact Phone Numbers:	(866) 423-0898	
MEMPHIS AREA PIPELINES		
Qualified Individual:	Andy Szabo – Senior Area Manager (662) 895-7202 (Office) (314) 575-2852 (24 Hr.)	
Alt. Qualified Individual:	Sam Kimmel – Senior I&E Technician (662) 895-7202 (Office) (901) 496-7195 (24 Hr.) Mark Lemmon – I&E Technician (662) 895-7202 (Office) (901) 848-7813 (24 Hr.) Jim Baldwin – I&E Technician (662) 895-7202 (Office) (901) 359-9530 (24 Hr.) Richard Willingham – Maintenance Technician (662) 895-7202 (Office) (901) 848-1641 (24 Hr.)	

FIGURE 1.1

INFORMATION SUMMARY (Cont'd)

PIPELINE LOCATION	
State(s) Traversed:	Tennessee, Mississippi, Arkansas
Response Zones:	Detailed later in this Figure. Also see Figure 1.2

PHYSICAL DESCRIPTION - PIPELINE

General:

- The pipeline originates at Collierville Terminal in Byhalia, MS and transports crude oil to the Valero Memphis Refinery. From the Memphis Refinery, refined products are transported to the West Memphis Terminal, the Exxon Terminal, and the Memphis Airport.
- This Plan is written in English and understood by personnel responsible for carrying out the Plan.

Pipeline Specifications:

The basic specifications of the pipeline are as follows:

- **Product Types:** Gasoline, Jet Fuel, Fuel Oil, Crude Oil
- **Pipe Detail:** 6-20 inch

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 volume:

Response Zone	Discharge Scenario	Potential Oil	DOT/PHMSA Planning
(b) (7)(F)	[redacted]		

FIGURE 1.1

INFORMATION SUMMARY (Cont'd)

PHYSICAL DESCRIPTION – PIPELINE (Cont'd)
These worst case discharge volumes are utilized in calculating the planning volume for response resources. The planning volume is used to determine the necessary on-water recovery capacity to respond within the three tiered response times. The identified oil spill recovery devices should be capable of arriving at the scene of a discharge within the time specified for the applicable response tier. The tier requirements for high volume areas are for response in 6 hours (Tier 1), 30 hours (Tier 2), and 54 hours (Tier 3). High volume areas are listed in 49 CFR 194. The tier requirements for all other areas are for response in 12 hours (Tier 1), 36 hours (Tier 2), and 60 hours (Tier 3). Appendix B of this Plan demonstrates a series of calculations and planning volume determinations based on guidance provided by the U. S. Environmental Protection Agency (EPA) in 40 CFR Part 112 *Final Rule* dated July 1, 1994, and the Department of Transportation (DOT) PHMSA regulations in 49 CFR 194.105 dated February 23, 2005. The inclusion of these calculations is for demonstration of the response planning volumes and response capability necessary for on-water and on-shore recovery requirements as the result of the discharge scenarios outlined in the table above.
OPERATOR'S STATEMENT – SIGNIFICANT AND SUBSTANTIAL HARM (SEE FOREWORD)
Based on the criteria that the pipeline is greater than 6 and 5/8 inches in outside nominal diameter, greater than 10 miles in length, and potentially could affect environmentally sensitive areas, the Memphis Area Pipeline is identified as "Significant and Substantial Harm".

FIGURE 1.1

INFORMATION SUMMARY (Cont'd)

RESPONSE ZONE INFORMATION

General:

- The Response Zones include the following:

Response Zone	Name of Pipeline	Date of Construction	Dia.	Types of Oil	(b) (7)(F)	Counties
Memphis Area	Memphis-West Memphis	2000	14 inch	Gasoline/ Diesel	[redacted]	Shelby Co., TN Crittenden Co., AR
	Exxon Lateral	2009	12 inch	Gasoline/ Diesel		Shelby Co., TN
	Fed Ex Lateral	1984	6 inch	Jet Fuel		Shelby Co., TN
	Collierville-Memphis	1984 1996 1996 1999 2000	10 inch 12 inch 14 inch 20 inch 20" Loop 20" Main-line	Crude Oil		Marshall Co., MS DeSoto Co., MS Shelby Co., TN
	Memphis-Memphis Airport	1984	6 inch	Jet Fuel		Shelby Co., TN

FIGURE 1.1

INFORMATION SUMMARY (Cont'd)

PHYSICAL DESCRIPTION – COLLIERVILLE TERMINAL*

Tank Number	Type	Materials Stored	Secondary Containment
TK-325077	Steel Tank w / External Floating Roof	Crude Oil	Earthen Berm
TK-325078	Steel Tank w / External Floating Roof	Crude Oil	Earthen Berm
TK-325079	Steel Tank w / External Floating Roof	Crude Oil	Earthen Berm

(b) (7)(F)

PHYSICAL DESCRIPTION –WEST MEMPHIS TERMINAL*

Tank Number	Type	Materials Stored	Secondary Containment
TK-810	Steel Tank w / External Floating Roof	Gasoline	Earthen Berm
TK-816	Steel Tank w / External Floating Roof	Gasoline	Earthen Berm
TK-813	Steel Tank w / Cone Roof	Diesel	Earthen Berm

(b) (7)(F)

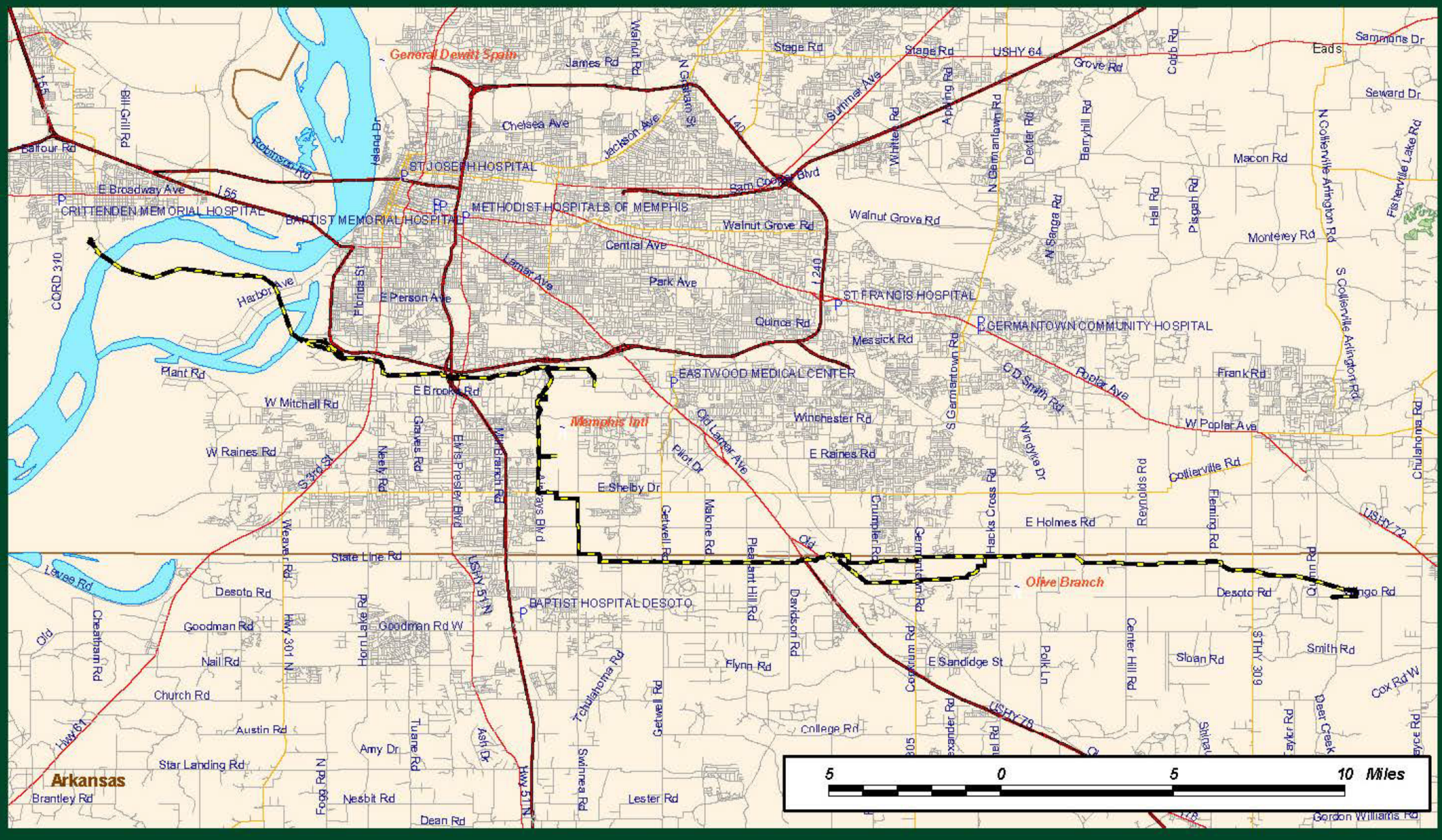
* DOT - Regulated Tanks.

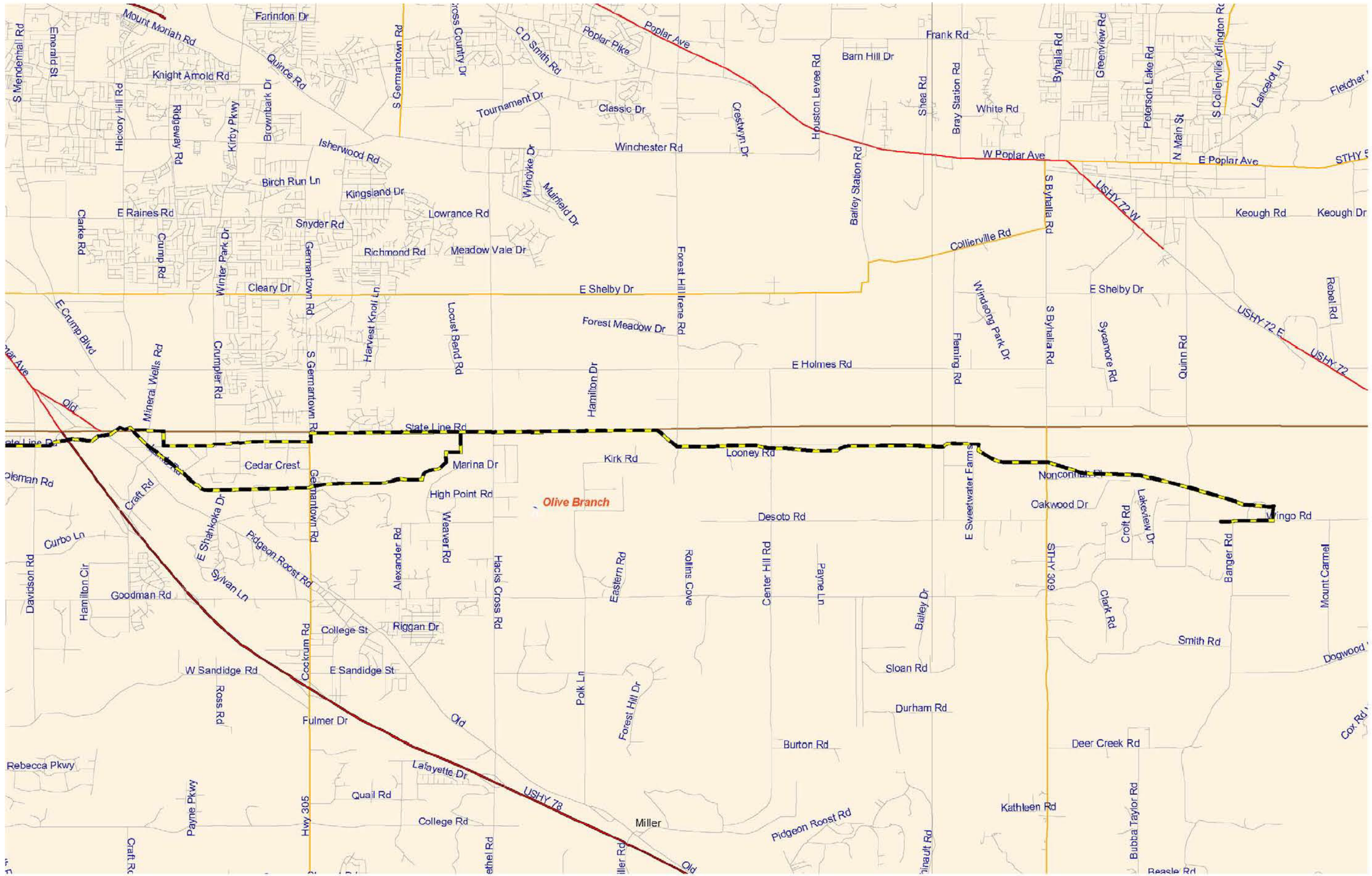
FIGURE 1.2

MEMPHIS AREA PIPELINE MAP

10", 12", 13" & 20" Memphis Pipeline, 6" AESI Jet Fuel, 3" Collierville Fuel Gas Pipeline

Map Prepared By
Response Management Associates, Inc.
(281) 320-9796

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Cross Country Dr
C D Smith Rd
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Poplar Ave
Barn Hill Dr
Frank Rd
Byhalia Rd
Greenview Rd
Peterson Lake Rd
S Collierville Arlington Rd
Lancelot Ln
Fletcher
Hickory Hill Rd
Ridgeway Rd
Kirby Pkwy
Brownbark Dr
Tournament Dr
Classic Dr
Crestwyn Dr
Houston Levee Rd
Shea Rd
Bray Station Rd
White Rd
N Main St
E Poplar Ave
STHY 57
Isherwood Rd
Winchester Rd
Windyke Dr
Muirfield Dr
Birch Run Ln
Kingsland Dr
Bailey Station Rd
W Poplar Ave
S Byhalia Rd
USHY 72 W
Keough Rd
Keough Dr
E Raines Rd
Clarke Rd
Crump Rd
Snyder Rd
Lowrance Rd
Winter Park Dr
Germantown Rd
Richmond Rd
Meadow Vale Dr
Collierville Rd
Cleary Dr
E Shelby Dr
Forest Hill Irene Rd
Windsong Park Dr
Rebel Rd
E Crump Blvd
Mineral Wells Rd
Crumpler Rd
Harvest Knoll Ln
Locust Bend Rd
Forest Meadow Dr
Hamilton Dr
Fleming Rd
Sycamore Rd
Quinn Rd
USHY 72 E
USHY 72
E Holmes Rd
Old
State Line Rd
Kirk Rd
Looney Rd
Marina Dr
Cedar Crest
High Point Rd
Olive Branch
Desoto Rd
Oakwood Dr
Lakeview Dr
Croft Rd
Wingo Rd
Craft Rd
Curbo Ln
Davidson Rd
Hamilton Cir
Goodman Rd
Sylvan Ln
E Shahkoka Dr
Pidgeon Roost Rd
Alexander Rd
Weaver Rd
Hacks Cross Rd
Eastern Rd
Rollins Cove
Center Hill Rd
Payne Ln
E Sweetwater Farms
STHY 309
Clark Rd
Banger Rd
Mount Carmel
Bailey Dr
College St
Riggan Dr
Cockrum Rd
W Sandidge Rd
E Sandidge St
Ross Rd
Fulmer Dr
Polk Ln
Forest Hill Dr
Sloan Rd
Durham Rd
Smith Rd
Dogwood
Cox Rd
Burton Rd
Deer Creek Rd
Rebecca Pkwy
Payne Pkwy
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College Rd
Lafayette Dr
USHY 78
Miller
Pidgeon Roost Rd
Kathleen Rd
Bubba Taylor Rd
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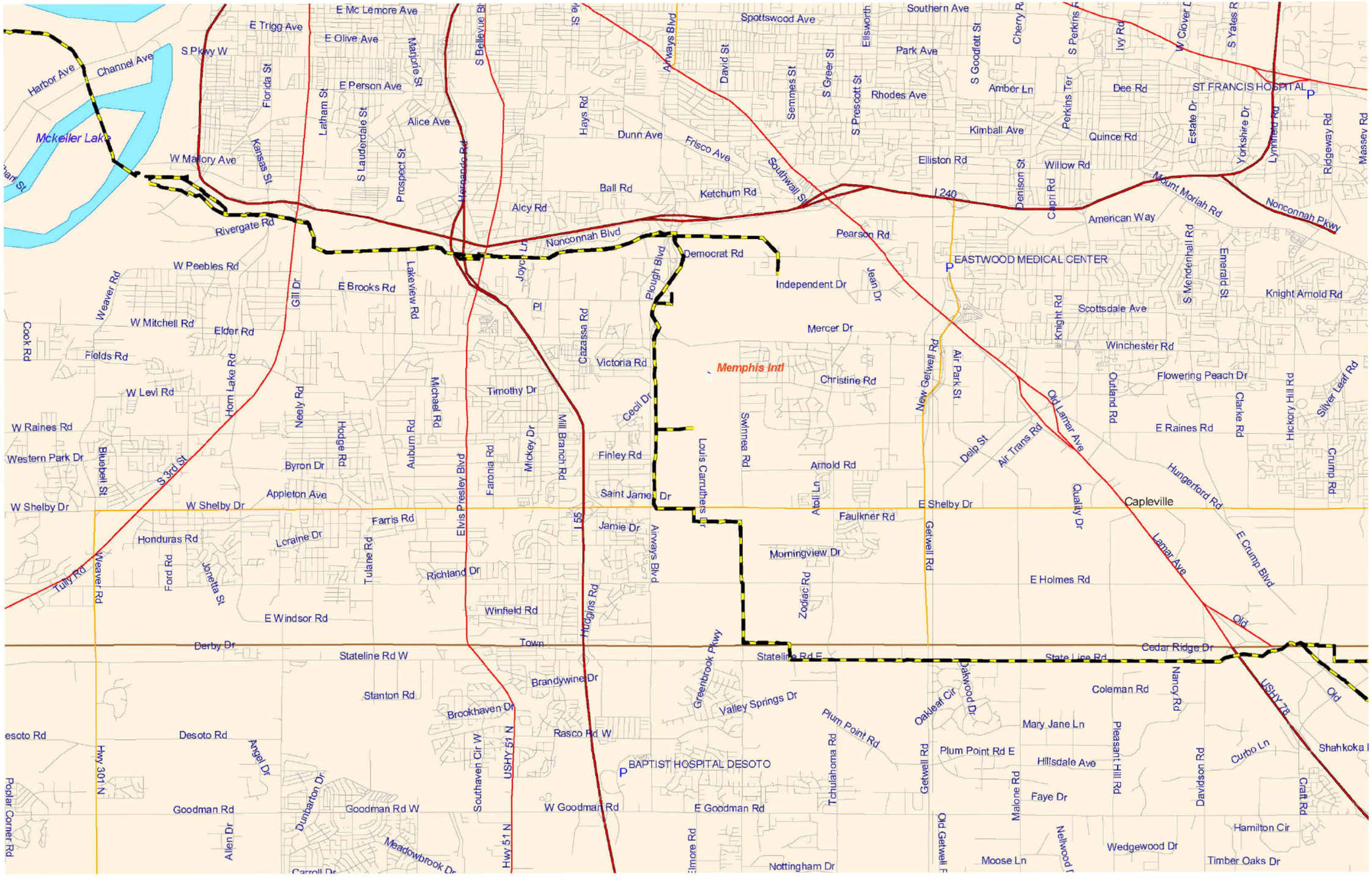
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E Olive Ave
S Pkwy W
Harbor Ave
Channel Ave
Florida St
Latham St
E Person Ave
Manila St
S Bellevue Blvd
Spottswood Ave
Southern Ave
Park Ave
Rhodes Ave
Amber Ln
Dee Rd
ST FRANCIS HOSPITAL
Kimball Ave
Quince Rd
Elliston Rd
Willow Rd
Mckellar Lake
W Mallory Ave
Kansas St
S Lauderdale St
Prospect St
Alice Ave
Hernando Rd
Hays Rd
Dunn Ave
Frisco Ave
Ball Rd
Ketchum Rd
Alcy Rd
Rivergate Rd
Nonconnah Blvd
Joyce Ln
Democrat Rd
Plough Blvd
Independent Dr
Pearson Rd
I 240
American Way
Mount Moriah Rd
Nonconnah Pkwy
EASTWOOD MEDICAL CENTER
W Peebles Rd
E Brooks Rd
Lakeview Rd
Gill Dr
Weaver Rd
W Mitchell Rd
Elder Rd
Fields Rd
Cook Rd
Cazassa Rd
Victoria Rd
Mercer Dr
Memphis Intl
Christine Rd
Scottsdale Ave
Winchester Rd
Knight Arnold Rd
Flowering Peach Dr
W Levi Rd
Horn Lake Rd
Neely Rd
Timothy Dr
Michael Rd
Cecil Dr
New Getwell Rd
Air Park St
Outland Rd
Clarke Rd
Hickory Hill Rd
Silver Leaf Rd
W Raines Rd
E Raines Rd
Western Park Dr
Bluebell St
S 3rd St
Byron Dr
Hodge Rd
Auburn Rd
Mill Branch Rd
Faronia Rd
Mickey Dr
Finley Rd
Louis Carruthers Dr
Swinnea Rd
Arnold Rd
Delp St
Air Trans Rd
Old Lamar Ave
Hungerford Rd
Crump Rd
W Shelby Dr
Appleton Ave
Honduras Rd
Loraine Dr
Farris Rd
Elvis Presley Blvd
I 55
Jamie Dr
Airways Blvd
Faulkner Rd
E Shelby Dr
Capleville
Quality Dr
Lamar Ave
E Crump Blvd
Morningview Dr
Getwell Rd
Zodiac Rd
E Holmes Rd
Tully Rd
Weaver Rd
Ford Rd
Jonetta St
Tulane Rd
Richland Dr
E Windsor Rd
Winfield Rd
Hudgins Rd
Derby Dr
Town
Stateline Rd W
Stateline Rd E
State Line Rd
Cedar Ridge Dr
Brandywine Dr
Stanton Rd
Greenbrook Pkwy
Valley Springs Dr
Plum Point Rd
Oakleaf Cir
Oakwood Dr
Coleman Rd
Nancy Rd
USHY 78
Old
Brookhaven Dr
Rasco Rd W
Southaven Cir W
USHY 51 N
BAPTIST HOSPITAL DESOTO
Plum Point Rd E
Mary Jane Ln
Hillsdale Ave
Pleasant Hill Rd
Davidson Rd
Curbo Ln
Craft Rd
Shahkoka
Desoto Rd
Hwy 301 N
Angel Dr
Poplar Corner Rd
Goodman Rd
Goodman Rd W
W Goodman Rd
E Goodman Rd
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Malone Rd
Faye Dr
Getwell Rd
Old Getwell Rd
Nellwood Dr
Hamilton Cir
Wedgewood Dr
Timber Oaks Dr
Moose Ln
Nottingham Dr
Dunbarton Dr
Allen Dr
Meadowbrook Dr
Carroll Dr
Hwy 51 N


Balfour Rd
Ditch 14 N
W Barton Ave
Rich Rd
Lehr St
Missouri St
State
Pine St
N 7th St
E Barton Ave
Southland Dr
Chloe Dr
Mound City Rd
Club Rd
Avalon
Robinson Rd
I 40
CORD 803
W Broadway Ave
E Broadway Ave
CRITTENDEN MEMORIAL HOSPITAL
I 55
Vanderbilt Ave
S Avalon St
Woods St
S 8th St
S 21st St
Club Rd
Bridgeport Cove
CORD 16
Rainer Rd
CORD 310
W Illinois Ave
E E H Crump Blvd
E Railroad Ave
S Riverside Dr
S 2nd St
Island Dr
Thomas St
Chelsea Ave
Smith Ave
Vollintine Ave
Brown Ave
N Hollywood St
Light St
Jackson Ave
N Watkins St
N Avalon St
N Pkwy
E Pkwy N
Summer Ave
ST JOSEPH HOSPITAL
N 2nd St
S 3rd St
Madison Ave
REGIONAL MEDICAL CENTER AT MEM
BAPTIST MEMORIAL HOSPITAL
METHODIST HOSPITALS OF MEMPHIS
Yale Ave
Poplar Ave
Peabody Ave
Central Ave
Fuller Dr
Lamar Ave
Park Ave
Barron Ave
Kimball Ave
Dunn Ave
Frisco Ave
Hays Rd
Ketchum Rd
Ball Rd
Alcy Rd
Norris Rd
Alice Ave
Prospect St
Hernando Rd
Mississippi Blvd
Kyle St
S Bellevue Blvd
Riverside Blvd
E Trigg Ave
S 4th St
E Mc Lemore Ave
Roanoke Ave
Florida St
E Person Ave
Latham St
S Lauderdale St
Kansas St
W Mallory Ave
Harbor Ave
Port Dr
United Dr
Channel Ave
Jetty St
Buoy St
Pier St
Mckeller Lake
Ditch 19 N
CORD 18
ORD 310
ORD 359
Plant Rd
Rivergate Rd
I 240
W Peebles Rd
E Brooks Rd
Lakeview Rd
Josibpet Ln
Democrat Rd
Republican
Plough Blvd
Winchester Rd
Meadow Ln
Memphis Intl
Christine Rd
Swinnea Rd
Louis Carruthers Dr
Airways Blvd
Cecil Dr
E Raines Rd
Timothy Dr
Craft Rd
Finley Rd
Elvis Presley Blvd
Faronia Rd
Mill Branch Rd
Auburn Rd
Hodge Rd
Neely Rd
Horn Lake Rd
Gill Dr
Graves Rd
Elder Rd
W Mitchell Rd
Fields Rd
Cook Rd
Pinkie Rd
Boxtown Rd
Weaver Rd
Sewanee Rd
W Levi Rd
W Raines Rd
Western Park Dr
Bluebell St
S 3rd St
Byron Dr
W Shelby Dr
E Shelby Dr
Loraine Dr
Bradford Dr
Honduras Rd
Wilson Rd
Jackson Pit Rd

2.0 NOTIFICATION PROCEDURES

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

2.1 INTERNAL NOTIFICATION

The following internal notifications should be made for each emergency incident to the extent that the incident demands (an internal notification sequence and telephone references are provided in Figures 2.1 and 2.2 respectively). In no event shall notification be delayed because the immediate supervisor is inaccessible. **Authorization is given to bypass management levels if necessary to provide immediate notification to upper management.** The Facility Spill Management Team will consist of members of the Local and Crisis Response Teams, as well as contract personnel as the situation demands. The typical internal notification responsibilities for each person potentially involved in the initial response are as follows:

Valero Partners Operating Co. LLC Person Notified/On-Scene

☐ Immediately notify the **Controller, and Manager/Control Center**.

☐ Immediately notify the **Pipeline Supervisor/Qualified Individual**.

Pipeline Supervisor/Qualified Individual

☐ Activate the **Tactical Response Teams**, as the situation demands.

☐ Immediately notify the **Area Supervisor or next higher level of management**.

Area Supervisor (or next higher level of management)

2.2 EXTERNAL NOTIFICATION

Pipeline Supervisor/Qualified Individual

☐ Notify all regulatory/governmental agencies and other external organizations (contact information is listed in Figure 2.5). A form containing information needed to be collected before reporting and a notification record is provided in Figure 2.3. Document all communication on this form).

☐ Notify other agencies and local community, as the situation demands. (Contact information is listed in Figure 2.5).

FIGURE 2.1

INTERNAL NOTIFICATION REFERENCES

INTERNAL NOTIFICATIONS – GENERAL			
MEMPHIS AREA	**ADDRESS**	**OFFICE**	**FAX NUMBER**
Collierville Terminal	772 Wingo Road Byhalia, MS 38611	(662) 895-7202	(662) 895-9668

INTERNAL NOTIFICATIONS – SPILL MANAGEMENT TEAM				(b) (6)	
POSITION/TITLE	**NAME**	**RESPONSE TIME**	**OFFICE**		**CELL**
Qualified Individual / Senior Area Manager	Andy Szabo	1 hour	(662) 895-7202		(314) 575-2852
Alt. Qualified Individual / Terminal Operators	Sam Kimmel		(662) 895-7202		(901) 496-7195
	Mark Lemmon		(662) 895-7202		(901) 848-7813
	Jim Baldwin		(662) 895-7202		(901) 359-9530
	Richard Willingham		(662) 895-7202		(901) 848-1641

EMPLOYEE NAME	OFFICE	CELL	HOME
Jay Ross / HS&E Specialist	(618) 255-5109	(217) 320-1382	
John Tenison / Manager HS&E	(210) 345-4665	(210) 287-4665	

FIGURE 2.2

USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS

USCG CLASSIFIED OIL SPILL REMOVAL ORGANIZATIONS (OSRO)			
COMPANY	**RESPONSE TIME**	**LOCATION**	**TELEPHONE**
National Response Corporation	6 Hours	Memphis, TN	(800) 899-4672 (24 Hr.) (901) 398-1920
U.S. Environmental Services, Inc. (USES)	1 Hour	Memphis, TN	(888) 279-9930 (24 Hr.) (662) 280-3232
Memphis Refinery	1 Hour	Memphis, TN	(901) 774-3100 (901) 775-8888 (24 Hr.)

FIGURE 2.3

SPILL RESPONSE NOTIFICATION FORM

Date: _____ ***Time:*** _____

INCIDENT DESCRIPTION

Reporter's Full Name: _____ ***Position:*** _____
Day Phone Number: _____ ***Evening Phone Number:*** _____
Company: Valero Partners Operating Co. LLC ***Organization Type:*** _____
Owner's Address: Valero MKS Logistics, L.L.C.
Facility Address: Memphis Area Pipelines One Valero Way
772 Wingo Road San Antonio, TX 78249
Byhalia, MS 78611

(b) (7)(F) [redacted]

Spill Location: _____
(if not at Facility) _____
Responsible Party's Name: _____ ***Phone Number:*** _____
Responsible Party's Address: _____
Source and/or cause of discharge: _____

Nearest City: Memphis
County: Marshall ***State:*** Mississippi ***Zip Code:*** 38611
Section: 20 ***Township:*** 1 S ***Range:*** 4 W ***Borough:*** _____
Distance from City: _____ ***Direction from City:*** _____
Container Type: _____ ***Container Storage Capacity:*** _____
Facility Oil Storage Capacity: _____
Material:

Total Quantity Released	Water Impact (*YES or NO*)	Quantity into Water

Weather conditions on scene: _____

RESPONSE ACTION(S)

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

Number of Injuries: _____ ***Number of Deaths:*** _____
Evacuation(s): _____ ***Number Evacuated:*** _____
Damage Estimate: _____
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***
NRC Incident Assigned No. _____

ADDITIONAL INFORMATION

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

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

FIGURE 2.4

EXTERNAL NOTIFICATION FLOWCHART (TENNESSEE)

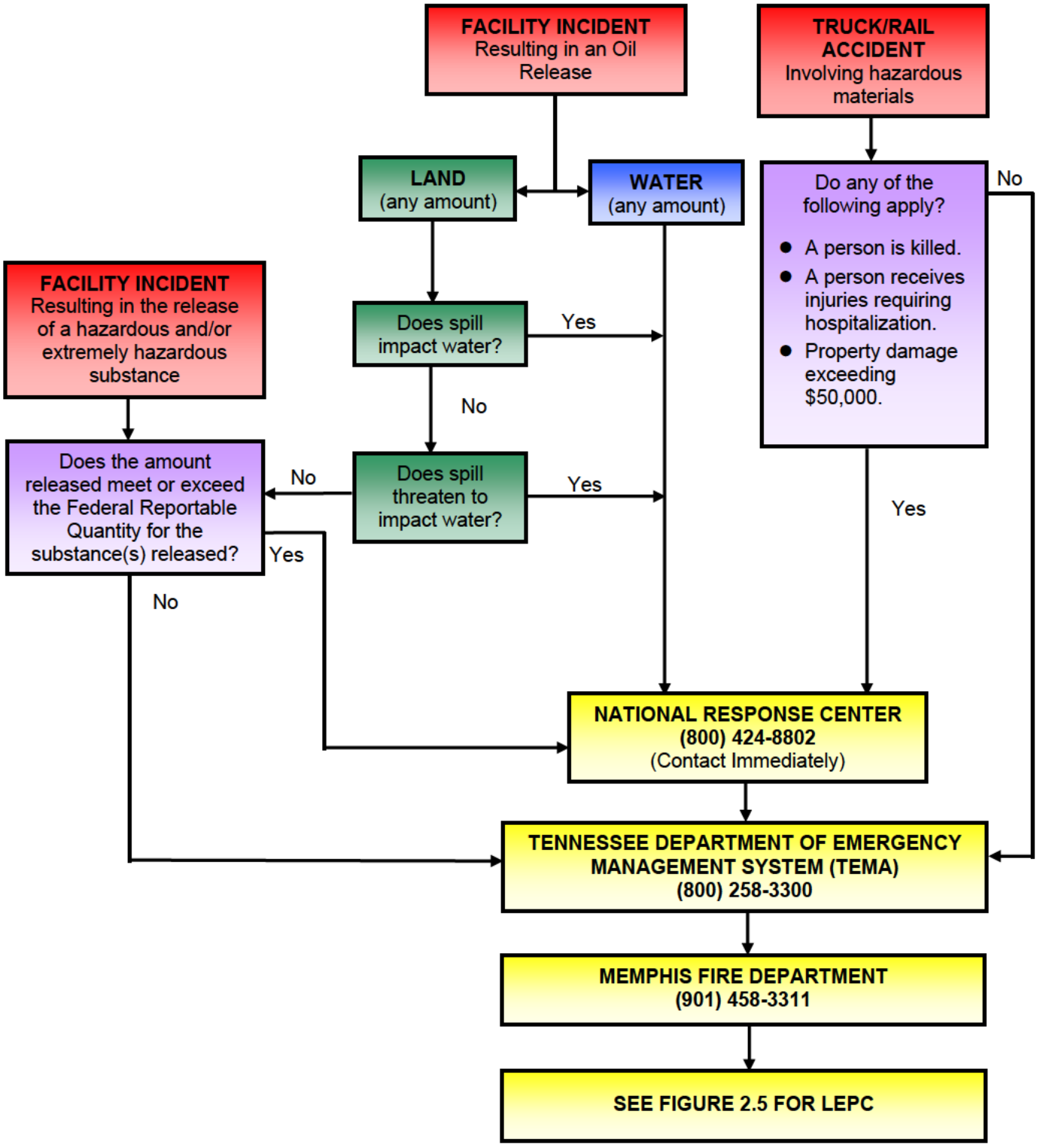


FIGURE 2.4(a)

EXTERNAL NOTIFICATION FLOWCHART (ARKANSAS)

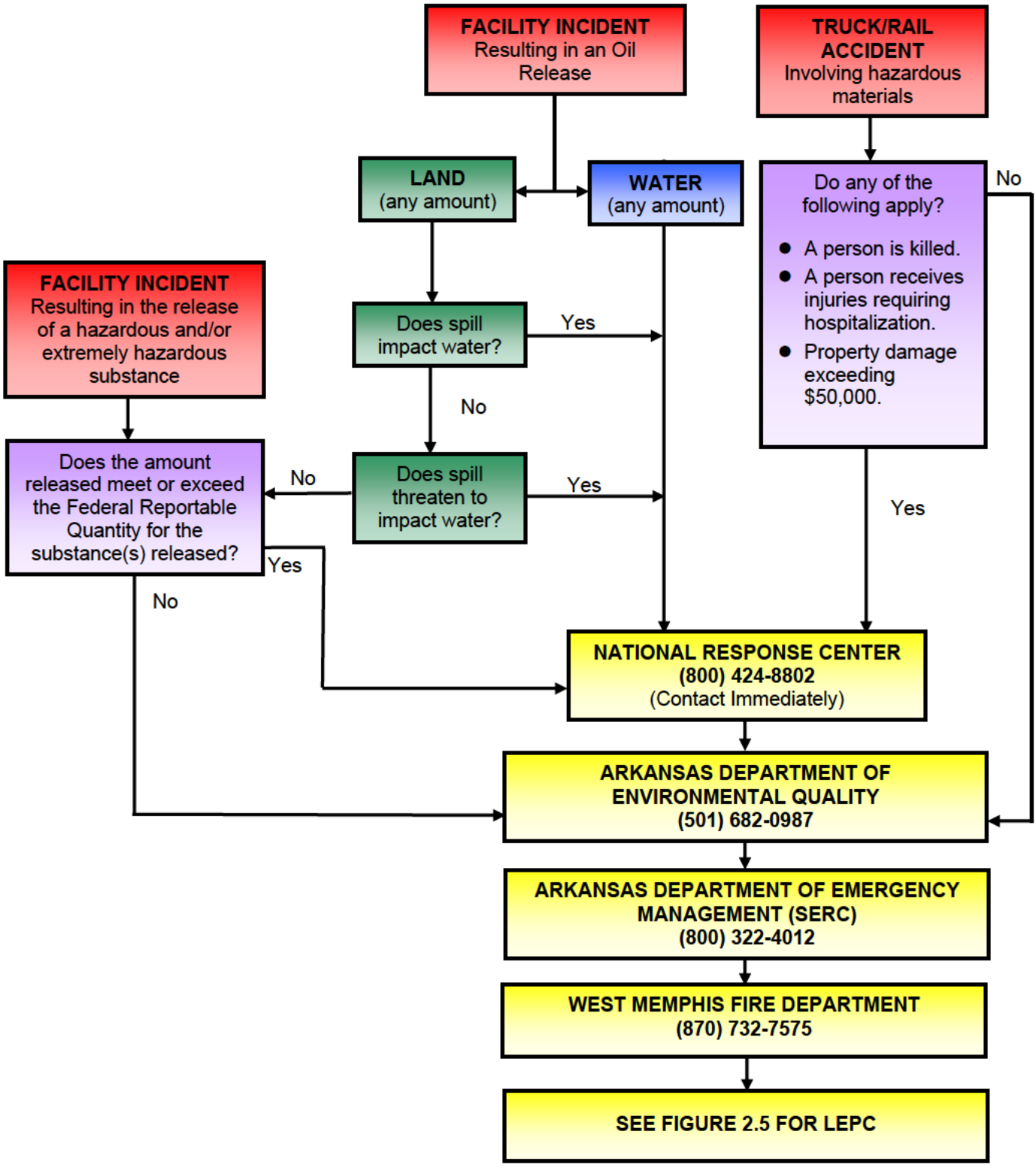


FIGURE 2.4(b)

EXTERNAL NOTIFICATION FLOWCHART (MISSISSIPPI)

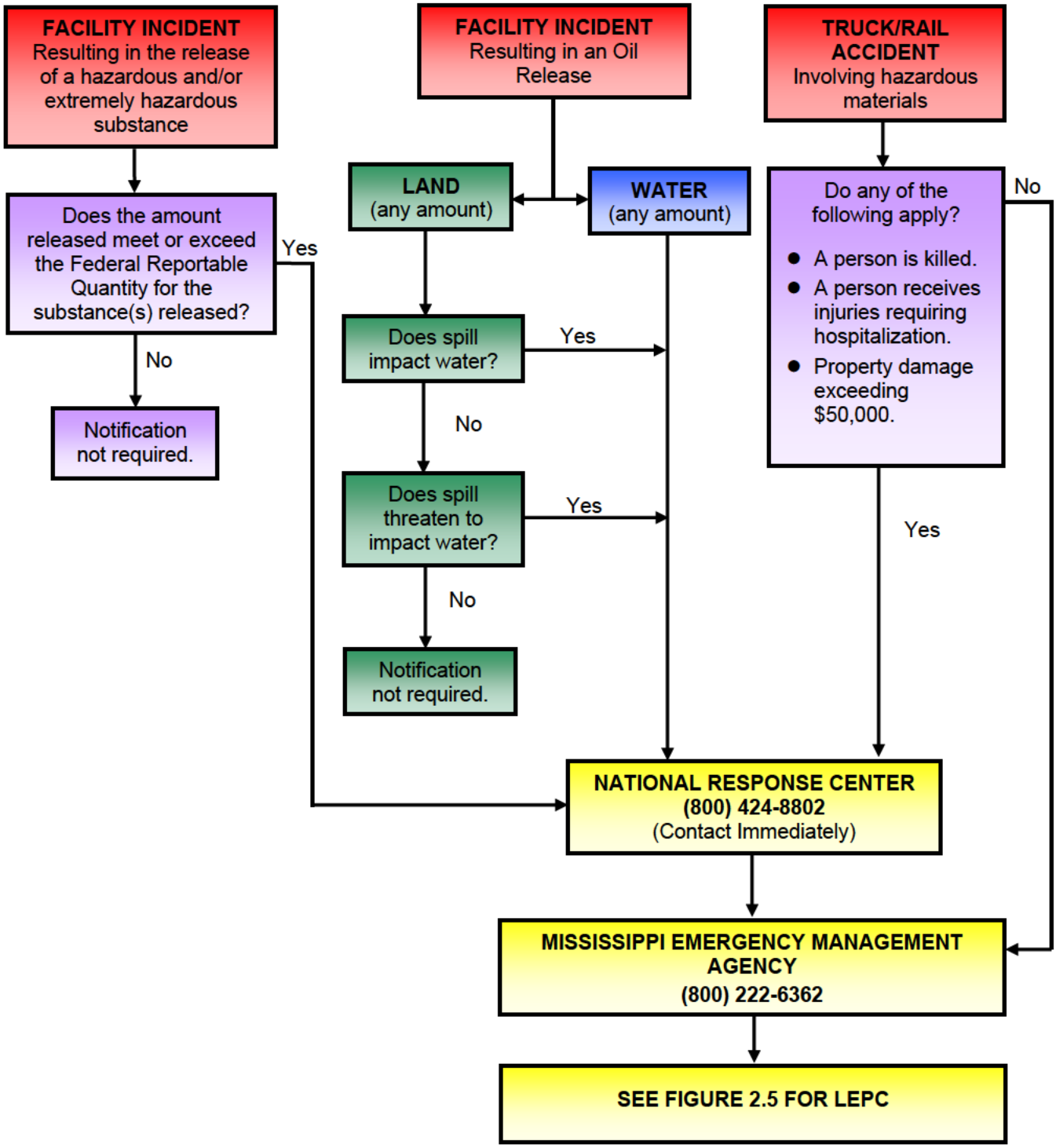


FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES

REQUIRED NOTIFICATIONS	
NATIONAL RESPONSE CENTER	
c/o United States Coast Guard (CG-5335) – Stop 7581 2100 2nd Street, SW Washington, D.C. 20593-0001	(800) 424-8802 (24 Hr.) (202) 267-2675 (24 Hr.) (202) 267-1322 (Fax)
REPORTING REQUIREMENTS TYPE: Any oil discharge that has impacted or threatens to impact navigable waters or release of a hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: Not Required Request fax confirmation of report	
TENNESSEE DEPARTMENT OF EMERGENCY MANAGEMENT AGENCY (TEMA)	
3041 Sidco Drive Nashville, TN 37204	(615) 741-0001 (24 Hours) (800) 262-3300 (24 Hrs. in State) (800) 258-3300 (24 Hrs. Nationwide)
REPORTING REQUIREMENTS TYPE: Any release of a hazardous substance or extremely hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: A written report is due within seven days of incident. **Note:** Waters of the state include surface and subsurface waters.	
TENNESSEE ENVIRONMENT AND CONSERVATION DEPARTMENT (SERC)	
2700 Middlebrook Pike Knoxville, TN 37921	(865) 594-6035 (800) 262-3300
REPORTING REQUIREMENTS TYPE: Any discharge of oil that leaves Facility property or any oil discharge that has impacted or threatens to impact navigable waters or release of a hazardous waste in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: As the agency may request, depending on circumstances **Note:** Waters of the state include surface and subsurface waters.	

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (Cont'd)	
MEMPHIS / SHELBY COUNTY EMERGENCY MANAGEMENT AGENCY (LEPC)	
2668 Avery Avenue Memphis, TN 38112	(901) 458-1515 (901) 458-4016 FAX
REPORTING REQUIREMENTS TYPE: Any release of a hazardous or extremely hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: A written report is due within seven days of incident.	
MEMPHIS FIRE DEPARTMENT	
Fire Marshal's Office	(901) 458-3311
REPORTING REQUIREMENTS TYPE: Any discharge or release that leaves Facility property and has the potential to endanger human health and life or property VERBAL: Immediately WRITTEN: As the agency may request, depending on circumstances	
ARKANSAS DEPARTMENT OF EMERGENCY MANAGEMENT (SERC)	
8001 National Drive Little Rock, AR 72209	(800) 322-4012
REPORTING REQUIREMENTS TYPE: Any oil discharge into a water body, any spill to land over 25 gallons, or release of a hazardous substance that meets the reportable quantity. VERBAL: Immediately WRITTEN: As required by the agency (Event Report – http://www.adem.state.ar.us/)	
ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY – REGULATED STORAGE TANKS DIVISION	
8001 National Drive Little Rock, AR 72219	(501) 682-0987
REPORTING REQUIREMENTS TYPE: Any release or suspected release from an underground or aboveground storage tank system into the groundwater, surface water, or subsurface soils of the state. VERBAL: Immediately WRITTEN: Within three (3) business days.	

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (Cont'd)	
CRITTENDEN COUNTY EMERGENCY MANAGEMENT AGENCY (LEPC)	
100 Court Street Marion, AR 72364	(601) 961-5171 (8:00 a.m. to 5:00 p.m.)
REPORTING REQUIREMENTS TYPE: Any discharge of oil that leaves Facility property or any oil discharge that has impacted or threatens to impact navigable waters or release of a hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: As the agency may request, depending on circumstances.	
WEST MEMPHIS FIRE DEPARTMENT	
Fire Marshal's Office	(870) 732-7575 (24 hr.) (870) 739-1683
REPORTING REQUIREMENTS TYPE: Any discharge that leave Facility property VERBAL: Immediately WRITTEN: As the agency may request, depending on circumstances.	
MISSISSIPPI EMERGENCY MANAGEMENT AGENCY (MEMA)	
1410 Riverside Drive Jackson, MS 39202	(601) 352-9100 (24 Hr. (800) 222-6362 (Emergency only)
REPORTING REQUIREMENTS TYPE: All spills involving oil into state waters. VERBAL: Immediately WRITTEN: As requested by the agency. **NOTE:** Waters of the state include surface and underground waters within or bordering upon the state.	
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ)	
Office of Pollution Control 2380 Highway 80 West Jackson, MS 39204	(601) 961-5171 (8:00 a.m. to 5:00 p.m.)
REPORTING REQUIREMENTS TYPE: All spills involving oil into state waters. VERBAL: Immediately WRITTEN: As requested by the agency. **NOTE:** Waters of the state include surface and underground waters within or bordering upon the state..	

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

REQUIRED NOTIFICATIONS (Cont'd)	
DESOTO COUNTY EMA (Emergency Management Agency)	
PO BOX 493 Nesbit, MS 38651	(662) 429-1359 (8:00 a.m. to 5:00 p.m.)
REPORTING REQUIREMENTS TYPE: All spills involving oil into state waters. VERBAL: Immediately WRITTEN: As requested by the agency. **NOTE:** Waters of the state include surface and underground waters within or bordering upon the state.	
MARSHALL COUNTY SHERIFF'S OFFICE	
819 West St. Holly Springs, MS 38635	(662) 252-1311
REPORTING REQUIREMENTS TYPE: Any release of a hazardous or extremely hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: A written report is due within seven days of incident.	
MARSHALL COUNTY FIRE DEPARTMENT	
Volunteer Fire Department Byhalia, MS 38611	(662) 815-6508
REPORTING REQUIREMENTS TYPE: Any release of a hazardous or extremely hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Immediately WRITTEN: A written report is due within seven days of incident.	

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER POTENTIAL REQUIRED NOTIFICATIONS	
OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)	
200 Constitution Avenue Washington, D.C. 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	
U.S. COAST GUARD – SECTOR LOWER MISSISSIPPI RIVER	
2 Auction Ave. Memphis, TN	(901) 544-3912
REPORTING REQUIREMENTS TYPE: Any oil discharge that has impacted or threatens to impact navigable waters or release of a hazardous substance in an amount equal to or greater than the reportable quantity. VERBAL: Notification to the USCG is typically accomplished by the call to the NRG. WRITTEN: Not Required Request fax confirmation of report	
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IV – REGIONAL FIELD OFFICE	
Jackson, TN	(731) 394-8996
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.	
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IV	
61 Forsyth Street, SW Atlanta, GA, 30303-8960	(404) 562-8700
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.	

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

OTHER POTENTIAL REQUIRED NOTIFICATIONS (Cont'd)	
U.S. ENVIRONMENTAL PROTECTION AGENCY REGION VI	
1445 Ross Avenue, Suite 1200 Dallas, TX 75202	(866) 372-7745
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.	
U.S. FISH AND WILDLIFE SERVICE	
1849 C Street NW Washington, D.C. 20240-0002	(202) 208-3100
REPORTING REQUIREMENTS TYPE: Wildlife Protection / Rehabilitation. VERBAL: Immediately WRITTEN: As the agency may request depending on circumstances	

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

SENSITIVE RESOURCES	
WATER INTAKE - CONTACT NAME/LOCATION	**TELEPHONE**
Allen Steam Plant / located approximately 5 miles southwest of downtown Memphis, TN.	(901) 789-8340 (901) 789-8464 (901) 789-8650 (901) 789-8421 (901) 789-8432 (24 Hours)
Arkansas Power and Light - Helena, AR / located approximately 70 miles downstream.	(870) 338-5316
Entergy- Greenville, MS / located approximately 150 miles downstream.	(662) 379-2916

ASSISTANCE/ADVISORY NOTIFICATIONS (outside resources)		
AGENCY	**LOCATION**	**TELEPHONE**
T.E. Maxson Wastewater Treatment Plant	Memphis, TN	(901) 789-0150
Tennessee Bureau of Investigation	Nashville, TN	(615) 744-4000
Port of West Memphis	West Memphis, AR	(870) 732-4380
Chemtrec	Washington, DC	(800) 424-9300
USFWS - Region IV	Atlanta, GA	(404) 679-4000
Arkansas State Police	Little Rock, AR	(870) 739-1683
National Weather Service (Recorded Forecasts)	Memphis, TN	(901) 332-3679
U.S. Coast Guard Sector Lower Mississippi River	Memphis, TN	(901) 544-3912
City of West Memphis Water Dept. (24-hr) City of West Memphis Wastewater Dept.	West Memphis, AR	(870) 735-3355
Memphis Port Commission	Memphis, TN	(901) 948-4422
Memphis Light, Gas & Water Division	Memphis, TN	(901) 528-4011
BFI	Millington, TN	(901) 872-7200
Waste Management	Memphis, TN	(901) 362-8950
Tennessee Division of Solid Waste Management	Memphis, TN	(901) 368-7939
TEPPCO Pipeline: McRae, AR	McRae, AR	(501) 726-3321
West Memphis Terminal Cell Phone	West Memphis, AR	(870) 210-6257

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

DOWNSTREAM NOTIFICATIONS		
COMPANY	**LOCATION**	**TELEPHONE**
Corps of Engineers Yard	Memphis, TN	(901) 785-6058 (901) 785-6059 (901) 785-6062
LITCO	Memphis, TN	(901) 774-5049
Martin Luther King Park Marina	Memphis, TN	(901) 946-2000
ADM Riverport	Memphis, TN	(901) 946-2593
Fleischmann's Yeast	Memphis, TN	(901) 942-7115
Cargill, Inc.	Memphis, TN	(901) 775-3700
ERGON, Inc.	Memphis, TN	(901) 775-1247
Railworks Wood Products	Memphis, TN	(901) 942-3326
Suburban Propane	Memphis, TN	(901) 948-2962
Mid-South Terminals	Memphis, TN	(901) 775-0500
Riceland Foods	West Memphis	(870) 735-6574 (b) (6) [redacted]
St. Francis National Forest	Helena, AR	(870) 295-5278
Texas Eastern – Helena	Helena, AR	(870) 338-3428
ADM – Helena	Helena, AR	(870) 338-6481
Warren Unilube	West Memphis, AR	(870) 732-7818
Texon	West Memphis, AR	(870) 735-3950
Animal Shelter	West Memphis, AR	(870) 732-7599
Tom Sawyer RV Park	West Memphis, AR	(870) 735-9770
West Memphis Water Treatment Plant	West Memphis, AR	(870) 735-3355
Boatman Stables	West Memphis, AR	(870) 735-1528
Helm Fertilizer	Memphis, TN	(901) 948-3303
W.M. Barr	Memphis, TN	(901) 775-0100
Trumbull Asphalt	Memphis, TN	(901) 774-7770
Brenntag	Memphis, TN	(901) 775-2100
IC RR Johnston Yard	Memphis, TN	(901) 789-6306
Wonder Bread Distribution Ctr.	Memphis, TN	(901) 942-2772
Vertex	Memphis, TN	(901) 775-1383

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

DOWNSTREAM NOTIFICATIONS (Cont'd)		
COMPANY	**LOCATION**	**TELEPHONE**
Wepfer Marine	Memphis, TN	(901) 775-0980
Planters Service and Sales	Helena, AR	(800) 428-9566
Texas Gas Transmission Company	Cordova, TN	(901) 759-5933
Potlatch Corp – McGee	McGee, AR	(870) 877-2662
Jubilee Casino – Greenville	Greenville, MS	(662) 379-2250
Las Vegas Casino	Greenville, MS	(800) 834-2721
Lighthouse Casino	Greenville, MS	(800) 878-1777
Fitzgerald's – Tunica	Tunica, MS	(800) 766-5825
Bally's Tunica	Tunica, MS	(800) 382-2559
Lady Luck – Lula	Lula, MS	(800) 789-5825

LOCAL EMERGENCY SERVICES		
DIAL 911 for All Police, Fire, and Ambulance Emergencies		
SERVICE	**LOCATION**	**TELEPHONE**
Shelby County Sheriff's Department	Memphis, TN	(901) 545-5500
Americare Ambulance Service	Memphis, TN	(901) 363-5686 (24 Hr.)
Memphis Fire Department EMS Bureau	Memphis, TN	(901) 458-3311
Med Care Ambulance, Inc.	Memphis, TN	(901) 685-2212
Methodist Healthcare	Memphis, TN	(901) 516-7000
Regional Medical Center	Memphis, TN	(901) 545-7100
West Memphis Police Department	West Memphis, AR	(870) 735-1210
Med Care Ambulance, Inc.	Memphis, TN	(901) 685-2212
Methodist Healthcare	Memphis, TN	(901) 516-7000
Regional Medical Center	Memphis, TN	(901) 545-7100
Crittenden County Sheriff's Dispatch (24-hr)	West Memphis, AR	(870) 702-2000
Crittenden Memorial Hospital	West Memphis, AR	(870) 735-1500
Marshall County Sheriff's Office	Holly Springs, MS	(662) 252-1311
DeSoto County Sheriff's Office	Nesbit, MS	(662) 429-1475

FIGURE 2.5

EXTERNAL NOTIFICATION REFERENCES (Cont'd)

MEDIA NOTIFICATIONS		
AGENCY	**LOCATION**	**TELEPHONE**
Channel 3 WREG TV	Memphis, TN	(901) 543-2333
Channel 5 WMC-TV	Memphis, TN	(901) 726-6510
Channel 10 WKNO TV	Memphis, TN	(901) 458-2521
Channel 13 WHBQ-TV	Memphis, TN	(901) 320-1313
WDIA AM 1070	Memphis, TN	(901) 525-3318
WHAL FM 95.7	Memphis, TN	(901) 578-1100
WREC Radio AM 600	Memphis, TN	(901) 535-9732

ADDITIONAL RESPONSE RESOURCES		
Planning and Incident Support		
COMPANY	**LOCATION**	**TELEPHONE**
Witt O'Brien's 818 Town & Country Blvd., Suite 200 Houston, TX 77024	Houston, TX	(281) 320-9796
EARL (Exotic Animal Rescue League) David Hannon	Cordova, TN	(901) 596-6940
Tennessee Wildlife Resources	Jackson, TN	(800) 372-3928
Tri-State Bird Rescue (Oiled wildlife cleanup, Delaware)	Newark, DE	(302) 737-9543 (9 to 5 EST) (302) 737-9562 (FAX)

3.0 RESPONSE ACTIONS

3.1 INITIAL RESPONSE ACTIONS

Initial response actions (Fig. 3.1) are those taken by operations personnel immediately upon becoming aware of a discharge or emergency incident, before the Local Response Team or Tactical Response Team (LRT or TRT) (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. These emergencies are discussed in the order listed below:

- Leaks/Spills
- Abnormal Operations
- Fire/Explosions
- Civil Emergencies
- Natural Disaster Emergencies

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

The first Company person on scene will function as the person-in-charge until relieved by an authorized supervisor. Transfer of command will take place as more senior management respond to the incident. The Pipeline Supervisor will assume the role of Incident Commander.

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
• Eliminate sources of ignition
• Isolate the source of the discharge, minimize further flow
• Activate Fire Department as necessary

3.1 INITIAL RESPONSE ACTIONS (Cont'd)

FIRST COMPANY PERSON NOTIFIED/ON SCENE

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

PIPELINE CONTROL

- _____ Initiate appropriate shutdown/emergency response actions.
- _____ Notify **Pipeline Supervisor**.

PIPELINE SUPERVISOR/QUALIFIED INDIVIDUAL (QI)

- _____ **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 Response Team and the **primary response contractors**, as the situation demands. (Telephone reference is provided in Figure 2.5)
- _____ Coordinate/perform **activation of additional spill response contractors,** as the situation demands.(Telephone reference is provided in Figure 2.2 and Figure 2.5)
- _____ Perform **regulatory agency notification,** as the situation demands (notification procedures and telephone references are provided in Figures 2.1 and 2.5 respectively).
- _____ Proceed to spill site and **coordinate response and clean-up operations.**
- _____ Direct containment and/or clean-up operations in accordance with the **"Product Specific Response Considerations"** beginning on 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

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

INITIAL RESPONSE

- _____ Take appropriate personal protective measures.
- _____ Call for medical assistance if an injury has occurred.
- _____ Restrict access to the 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. See Appendix E for 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 release.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

LINE BREAK OR LEAK, SPECIFIC RESPONSE

- _____ Shut down pumping equipment.
- _____ Close upstream and downstream block valves.
- _____ Initiate emergency shut down procedures.
- _____ Mitigate spreading of the product, as the situation demands.
- _____ Prevent the spill from entering the waterways, sewer, etc. to the greatest extent possible.
- _____ Determine the direction and expected duration of spill movement.
- _____ If located within containment area, ensure that drainage valve(s) is “closed”.
- _____ If the spill escapes the containment area, review the location of socio-economic and environmentally sensitive areas identified in Section 6.0. Determine which of these may be threatened by the spill and direct the response operation to these locations. Initiate protection and recovery actions.
- _____ Drain the line section, as the situation demands.
- _____ Make all necessary repairs.
- _____ Return line to service when repairs are complete.
- _____ Clean up spilled product to eliminate any possible environmental problems.
- _____ Complete follow-up and written reporting, as the situation demands.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

STORAGE TANK LEAK, SPECIFIC RESPONSE

- _____ Shut down product movement operations and isolate the tank.
- _____ Initiate emergency shut down procedures as applicable.
- _____ Ensure that containment area drainage valve(s) is "closed".
- _____ Stop all traffic in hazardous area (inside and outside of property boundaries), as the situation demands.
- _____ Remove product from containment area (at a sump or in a low area) with an explosion proof pump, oil skimmer, and/or vacuum truck w/ skimmer attachments.
- _____ If the spill escapes the containment area, review the location of socio-economic and environmentally sensitive areas identified in Section 6.0 and the applicable ACP. Determine which of these may be threatened by the spill and direct the response to these locations. Initiate protection and recovery actions.
- _____ Determine the direction and expected duration of spill movement. Refer to the maps in Section 6.0.
- _____ Empty tank as soon as possible.
- _____ Make all necessary repairs. Return the tank to service when repairs are completed and tests approved.
- _____ Clean up product spill to eliminate any possible environmental problems (e.g. contaminated soil).
- _____ Implement disposal procedures based on waste streams generated.
- _____ Complete follow-up and written reporting, as the situation demands.

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

ABNORMAL PIPELINE OPERATIONS

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

Note: For additional details, refer to the Abnormal Operations Section located in Section 2 of the Company's Operations and Maintenance Manual.

ABNORMAL OPERATIONS

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

EXPLOSIONS AND/OR FIRE, 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: If the situation warrants, and your personal safety is ensured, initial efforts to extinguish small incipient stage fires may prove to 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 the Pipeline Control and 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
  - Sound the emergency siren (air-horn), contact the local fire department
  - 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
  - Have truck dispatched immediately to area
  - Have fire pumps started and on standby (if applicable)
  - Initiate internal and external notifications in accordance with the fire and other emergency response plans

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

EXPLOSIONS AND/OR FIRE, SPECIFIC RESPONSE (Cont'd)

- _____ 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
- _____ Establish objectives and priorities based on this assessment
  - Get water or foam on the fire
  - Be aware of overhead power lines, DO NOT flow water near them
  - Find a way to get water to the fire quickly and safely (i.e., monitors, hydrants, truck)
  - Water will quickly fill the dike area
  - Evaluate the water usage and determine whether or not to open/ close the internal and external dike drains

(b) (7)(F)

[redacted]

FIGURE 3.1

SPECIFIC INCIDENT RESPONSE CHECKLIST (Cont'd)

NATURAL DISASTERS, SPECIFIC RESPONSE

- _____ In case of severe weather such as flooding, thunderstorms, and tornados, the Pipeline Supervisor will be notified and should keep aware of alert levels.

- _____ If severe weather threatens to cause injury or damage, Pipeline Supervisor will take appropriate precautions to ensure safety.

- _____ In case of earthquake, the following steps should be taken to ensure personnel safety:

    1. If indoors, crouch under a desk or table well away from windows or glass dividers; inside doorways may also be used as protection.

    2. If outside, stand away from buildings, process units, process piping, electrical power lines and poles.

    3. If on a road, drive away from units, pipe-racks, underpasses and overpasses; stop in a safe area and stay in vehicle.

- _____ After the initial earthquake has passed, all personnel should be accounted for and damage to buildings, units, tanks, and other structures should be assessed.

FIGURE 3.2

FLAMMABLE LIQUIDS (Non-Polar/Water-Immiscible)

The following information is intended to provide the initial responder(s) with data that may be useful in making quick decisions and executing prompt response actions. The information is intended for guideline purposes only.

HAZARD IDENTIFICATION / RECOGNITION

GUIDE NO. 128

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.
- Substance may be transported hot.

HEALTH

- Move victim to fresh air. Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions.

PUBLIC SAFETY

- Isolate spill or leak area immediately for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

EVACUATION

Large Spill

- Consider initial downwind evacuation for at least 300 meters (1,000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Information provided by the Emergency Response Guidebook 2012.

3.2 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

After initial response has been taken to stop further spillage and notifications made to the required agencies, the Company will begin spill containment, recovery, and disposal operations.

The Incident Commander will assess the size and hazards of the spill. The type of product, the location of the spill, and the predicted movement of the spill will be considered.

Based on this assessment, additional clean-up personnel and equipment will be dispatched to the site and deployed to control and contain the spill. Boom may be deployed in waterways to contain the spill and to protect socio-economic and environmentally sensitive areas. Booms may also be used in waterways to deflect or guide the spill to locations where it can more effectively be cleaned up using skimmers, vacuum trucks, or sorbent material. Clean-up equipment and material will be used in the manner most effective for rapid and complete clean-up of all spilled product.

Response and cleanup will continue until all recoverable product is removed, the environment is returned to its pre-spill state, and the Unified Command of the Company Incident Commander and the Federal and/or State On-Scene Coordinators determine that further response and cleanup is no longer necessary.

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:

- Oily debris will be segregated on site and containerized for temporary storage prior to disposal in accordance with Company procedures and all State and Federal 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 at Company pre-approved sites that have the necessary permits to accept the type of waste to be disposed.

3.5 SAMPLING AND WASTE ANALYSIS PROCEDURES

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 Pipeline 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 Pipeline Facility and the response operations.

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

- All employees/contractors must have received orientation using the Site Safety Plan (SSP) developed for the incident using ICS Form 208.
- 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 Appendix D.
- No employee/contractor shall engage in activities that place them at risk without the appropriate protective equipment and training.

3.6 SAFETY AWARENESS (Cont'd)

3.6.1 General Response Safety

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

- Any concern regarding health or safety issues should be immediately addressed.
- The First Company Person on scene must consider the spill site as dangerous and the local atmosphere explosive until air monitoring procedures prove that the area is safe.
- The First Company Person on scene 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 in a timely manner.
- Prior to entering a spill area, a qualified person must perform an initial safety and health evaluation of the site.

3.6.2 Air Monitoring

It is imperative that air monitoring equipment is operated and their data interpreted by trained personnel thoroughly familiar with the equipment.

- The air monitoring equipment should be calibrated before and after every use.
- 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.
- Where unknown and multiple contaminants are present, instrument readings should be interpreted conservatively.
- The Incident Commander is responsible for industrial hygiene monitoring in the post discovery period.

3.6 SAFETY AWARENESS (Cont'd)

3.6.3 Decontamination

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 Pipeline Control.
- 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.

3.6.4 Personal Protective Equipment (PPE)

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

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

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 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 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.

3.8 EVACUATION

This evacuation plan shall be implemented in the event of an incident which requires the evacuation of one or more areas of the Terminal.

The primary responsibility of the Incident Commander is to account for all employees and visitors in the emergency area. Upon direction from the acting Incident Commander to evacuate the Terminal and/or areas of the Terminal, the following steps shall be taken:

- Personnel shall be notified to evacuate verbally or by radio. There is no specific Evacuation Alarm. There are audible fire alarms on the tanks and on the natural gas turbine. These are explained upon issuance of a work permit. Contractors are also informed at the time of the permit, in the event of an audible alarm, to exit the Facility through the Main Gate and muster at the road. Any emergency requiring an evacuation would also be communicated verbally to all onsite.
- Bring all units to safest levels possible as required.
- If primary evacuation routing is in proximity of hazard area, alternate route(s) must be taken; use evacuation routes that are up wind of any release when at all possible.

3.8 EVACUATION (Cont'd)

EVACUATION PLANNING

The primary evacuation routes were developed with the following factors taken into consideration:

- location of stored materials;
- hazard imposed by spilled material;
- spill flow direction;
- prevailing wind direction and speed;
- water currents, tides, or wave conditions (if applicable);
- arrival route of emergency response personnel and response equipment;
- evacuation routes;
- alternative routes of evacuation;
- transportation of injured personnel to nearest emergency medical facility;
- location of alarm/notification systems;
- the need for a centralized check-in area for evacuation validation (roll call);
- selection of a mitigation command center; and
- location of shelter at the facility as an alternative to evacuation.
- all employees and contractors have been trained to evaluate the safety of the primary route prior to using it for evacuation.

EVACUATION ASSEMBLY AREAS

An evacuation assembly area is a safe location where non-responding personnel can assemble or re-assemble off of the Terminal.

ACCOUNTABILITY

Accountability is not complete until all personnel that could be within the emergency area have been located. Accountability is maintained through a Log In/Out Book.

Personnel to be counted:

- Valero employees
- Visitors and suppliers
- Contractors

For a person to be considered accounted for that person:

- Must have been contacted
- Have their status verified
- Have their status reported to the proper management level

DURING AN EMERGENCY

Essential operating personnel will be accounted for at the Muster Point.

3.8 EVACUATION (Cont'd)

EVACUATION LEVELS:

There are two (2) levels of evacuation based on the severity of an incident and the level of emergency control required:

- **Level 1: Evacuation of Non-Critical Personnel from the Terminal**
  Standard evacuation of all contractors and all Valero personnel who are not responding to the incident to the muster point at Wingo Road.

- **Level 2: Evacuation of All Personnel from the Terminal**
  Complete evacuation of ALL personnel from the Terminal. This should occur when local personnel cannot safely address the emergency. The Pipeline Control Center can shut down processes as needed.

During an evacuation, whether localized or entire facility, all personnel must be accounted.

Supervisory Personnel

- _____ Initiate manual accountability process at assembly areas.
- _____ Ensure Headcount are performed at assembly areas.
  - Headcount report should include Name and Department of the following:
    1. Employees located
    2. Employees not located
    3. Visitors / Contractors located
    4. Visitors / Contractors not located
- _____ Report headcount results to the EOC.
- _____ If Personnel are not missing, then accountability is complete.
- _____ If Personnel are missing, determine if a sweep can be done.
  - Initiate affected site accountability
  - Sweep area searching for missing personnel using Emergency Response Team

If accountability sweep is ordered.

Emergency Response Team Leader

- _____ Perform primary search of affected area, if safe to do so.

3.8 EVACUATION (Cont'd)

Emergency Response Team Leader (Cont'd)

- _____ Perform secondary search, if safe to do so.
- _____ Account for all personnel
- _____ Report results of accountability to EOC

Emergency Operations Center

- The task of accounting for all personnel is not complete until the status and location of **All Personnel** has been determined.

3.9 MEDICAL EMERGENCY / RESCUE INCIDENT

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 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 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.

Person Who Discovers the Medical Emergency

- _____ Immediately call 911 and provide them with your name and location of the medical emergency.

3.9 MEDICAL EMERGENCY / RESCUE INCIDENT (Cont'd)

Person Who Discovers the Medical Emergency (Cont'd)

- _____ Do not move the injured person except in cases of immediate danger.
- _____ Apply first aid to the level to which you have been trained.
- _____ Notify the Terminal Manager. If the Pipeline Supervisor is not available, notify the Senior Area Manager and HS&E Personnel.

Note:

1. All injuries must be reported.
2. Non-emergency injuries or conditions should be sent to the nearest hospital.

EMS Personnel

- _____ Respond to the Scene, as appropriate.
- _____ Provide medical care to the level to which you have been trained.
- _____ Support the Medical Supervisor or Ambulance Personnel, as instructed.

4.0 RESPONSE TEAMS

4.1 INTRODUCTION

This Section describes organizational features and duties of the Local Response Team, the Qualified Individual, and support provided by the Valero Memphis Refinery Incident Management Organization. Training records for the teams are maintained in the Pipeline Facility Office.

The key to an effective emergency response is a rapid, coordinated, tiered response by the affected facility, and the Company Incident Management Organization, consistent with the magnitude of an incident.

First response to an incident at the Pipeline Facility will be provided by the Local Response Team (LRT). The Valero Memphis Refinery Incident Management Organization will respond, to the degree necessary, to incidents exceeding local capability. If a response exceeds the Local Response Team's capabilities, the Incident Commander will activate additional resources as necessary.

The Pipeline Facility 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 Figure 4.3. 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 Incident Action Plan (IAP) process, and meetings.

The U.S. Occupational Safety and Health Administration (OSHA) requires that organizations that respond to emergencies involving hazardous materials adopt a nationally recognized Incident Command System [29 CFR 1910.120(q)(3)(i)]. The Incident Management System (IMS) is based upon *The National Incident Management System (NIMS)*, as developed by the Department of Homeland Security. Personnel assigned specific positions on response teams are thoroughly familiar with their roles and responsibilities, and participate in specified training programs and exercises simulating oil spill events.

4.2 QUALIFIED INDIVIDUAL

The Qualified Individual (QI) is responsible for the full implementation of the Oil Spill Response Plan, and is trained for these responsibilities. The Alternate Qualified Individual (AQI) provides relief to the QI, as needed. The QI is responsible for implementing response plans, directing response operations, and resolving internal conflicts that arise during response operations either directly or through the use of qualified designees.

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.

Vital duties of the Qualified Individual (QI) include:

- Activate internal alarms and hazard communication systems to notify all Pipeline Facility personnel.
- Notify all response personnel, as needed.

4.2 QUALIFIED INDIVIDUAL (Cont'd)

- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification.
- Notify and provide necessary information to the appropriate Federal, State, and Local authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and local response agencies.
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion).
- Assess and implement prompt removal actions to contain and remove the substance released.
- Coordinate rescue and response actions as previously arranged with all response personnel.
- Activate and engage in contracting with oil spill removal organizations (OSRO).
- Use authority to immediately access Company funding to initiate cleanup activities.
- Direct cleanup activities until properly relieved of this responsibility.
- 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 Pipeline 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 (LRT)

The first Company person on scene will contact the Pipeline Supervisor and will assume the position of Incident Commander (IC). For response operations within the control of the Local Response Team, the role of IC will typically be assumed and retained by the Pipeline Supervisor.

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 4.2. The LRT should try to fill the necessary positions and request additional support from the Incident Management 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 Figure 4.3.

4.4 INCIDENT MANAGEMENT ORGANIZATION

For spill response operations outside the capabilities of the Local Response Team (LRT), the QI/AQI or IC will determine the need for support from the Valero Memphis Refinery Incident Management Organization.

The Valero Memphis Refinery Incident Management Organization effectively integrates three elements – on-scene a Tactical Response Team (TRT), an Incident Management Team (IMT) and a Managerial Advisory Panel (MAP) – into a single organization. Each of these elements has predefined roles and responsibilities summarized below.

- **Tactical Response Team (TRT)** Consists of Valero Memphis Refinery, industrial mutual aid, and environmental contractors' units operating at the scene of an emergency under the command of the On-Scene Commander. Depending upon the nature of the incident, Tactical Response Team operations could include firefighting, HAZMAT, medical, oil spill response, technical rescue, and scene safety.

- **Incident Management Team (IMT) (e.g., Command Staff, Planning, Logistics, and Finance Sections)**. Consists of senior Valero Memphis Refinery managers and support staff who are responsible for managing the overall emergency response, addressing corporate, external and governmental notifications, and supporting tactical and process control operations in the field.

- **Managerial Advisory Panel (MAP)** Consists of senior Valero Memphis Refinery personnel that support the IMT on policy and strategy issues related to Crisis Management, Assets, Law, Government/Public Affairs, Human Resources and Digital Business.

The key to an effective emergency response is a rapid, coordinated, tiered response by the TRT/IMT and the Oil Spill Removal Organization (OSRO), consistent with the magnitude of an incident.

4.5 INCIDENT COMMAND SYSTEM

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 all incidents
- Communications are structured
- There is a structured system for response and assignment of resources

4.5 INCIDENT COMMAND SYSTEM (Cont'd)

- 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, and Federal public sector emergency response personnel
- Provide a solid cornerstone for emergency planning efforts.

The Incident Command structure for the Memphis Area Pipelines, including incident specific Operations Section command structure, is shown in Figure 4.1. A description of each ICS position, the primary responsibilities, and pre-emergency planning activities are provided in Figure 4.3 at the end of this Section.

4.6 UNIFIED COMMAND

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

Multiple jurisdictions may be involved in a response effort utilizing 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 UC. The UC may change as an incident progresses, in order to account for changes in the situation.

4.6 UNIFIED COMMAND (Cont'd)

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

UC representatives must be able to:

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

FIGURE 4.1

EMERGENCY RESPONSE TEAM – COMMAND STRUCTURE

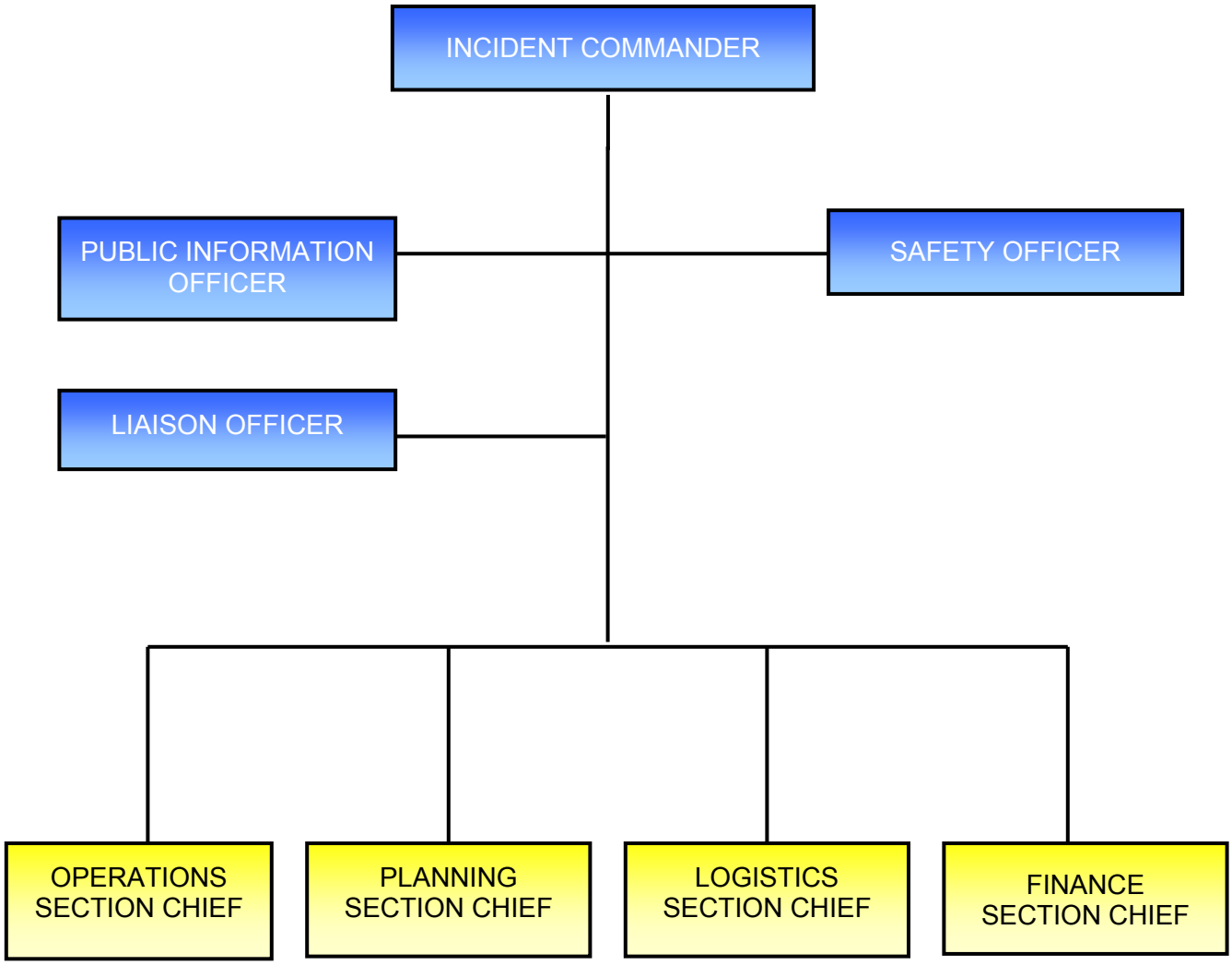


FIGURE 4.2

INCIDENT MANAGEMENT ORGANIZATION

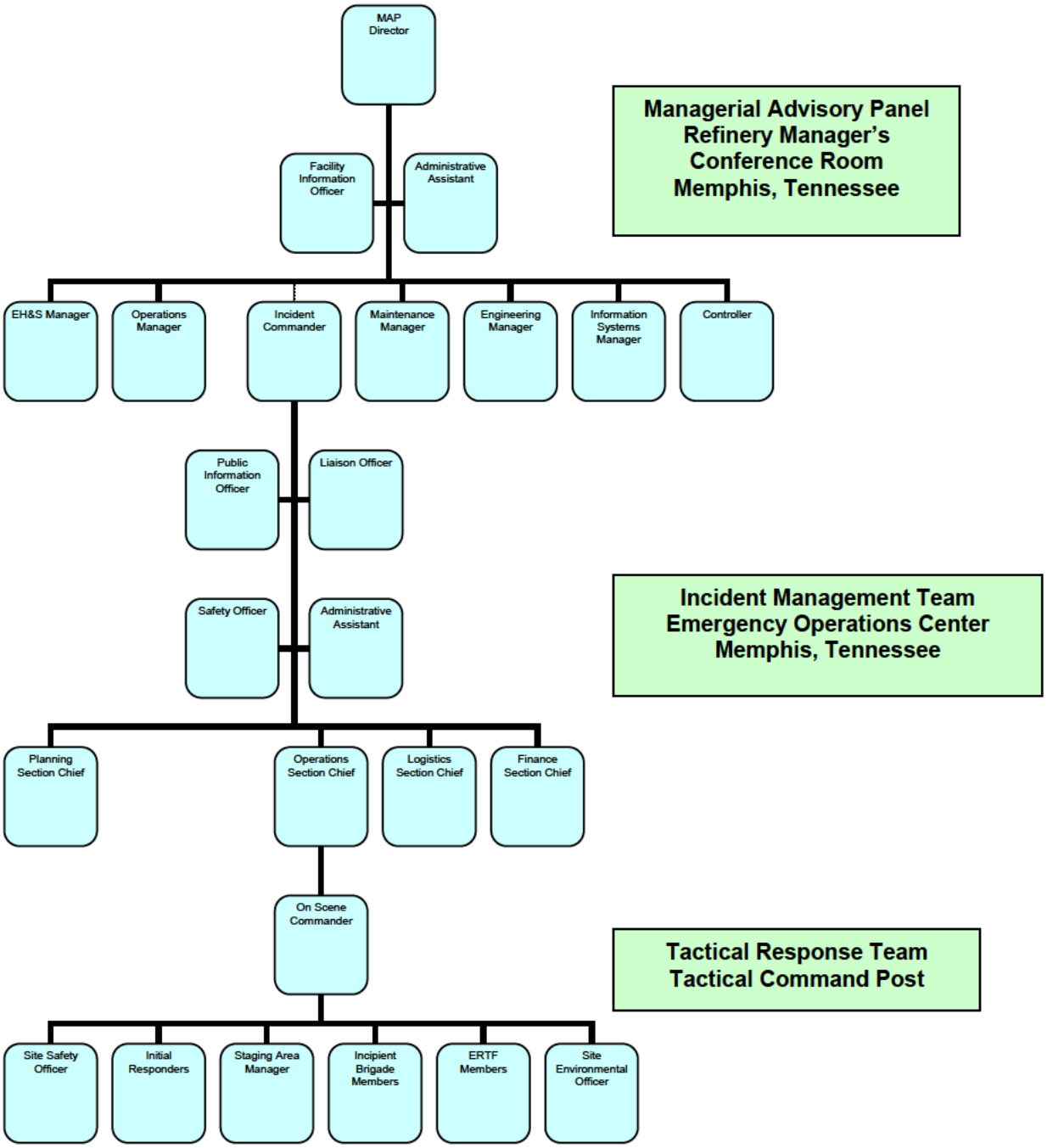


FIGURE 4.3

ICS ROLES AND RESPONSIBILITIES

COMMON RESPONSIBILITIES

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

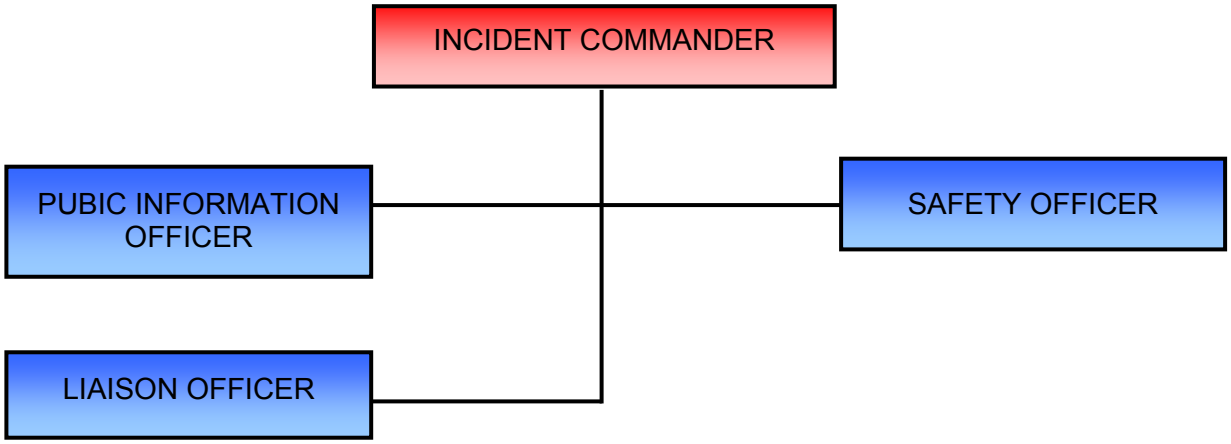
- Receive assignment, including:
  - Job assignment
  - Resource order number and request number
  - Reporting location
  - Reporting time
  - Travel instructions
  - Special communications instructions
- Upon arrival, check-in at designated check-in location.
- Receive briefing from immediate supervisor.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

UNIT LEADER RESPONSIBILITIES

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

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

COMMAND



INCIDENT COMMANDER

- Assess the situation and/or obtain a briefing from the prior IC.
- Determine Incident Objectives and strategy.
- Establish the immediate priorities.
- Establish an ICP.
- Brief Command Staff and Section Chiefs.
- Review meetings and briefings.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an IAP.
- Ensure that adequate safety measures are in place.
- Coordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep 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) is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident when appropriate.

PUBLIC INFORMATION OFFICER

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

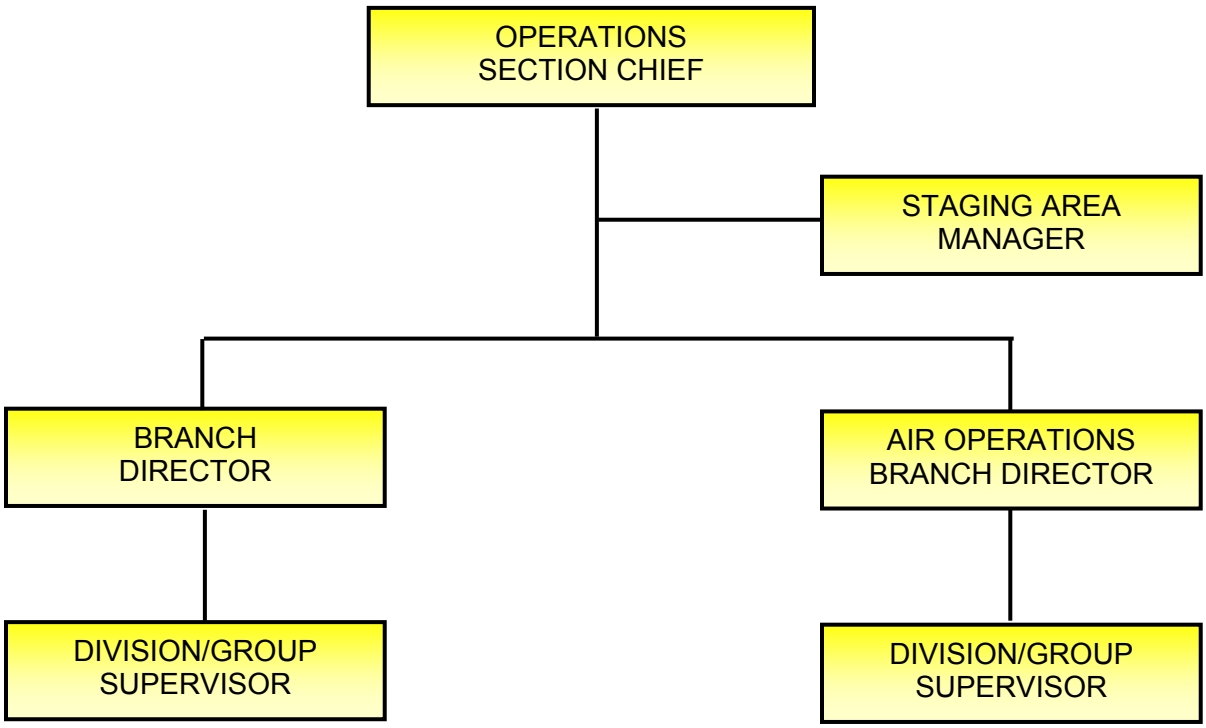
LIAISON OFFICER

- Be a contact point for Agency Representatives.
- Maintain a list of assisting and cooperating agencies and Agency Representatives. Monitor check-in sheets daily to ensure that all Agency Representatives are identified.
- Assist in establishing and coordinating interagency contacts.
- Keep agencies supporting the incident aware of incident status.
- Monitor incident operations to identify current or potential inter-organizational problems.
- Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources.
- Coordinate response resource needs for Natural Resource Damage Assessment and Restoration (NRDAR) activities with the Operations Section (OPS) during oil and HAZMAT responses.
- Coordinate response resource needs for incident investigation activities with the OPS.
- 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 IAP 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.

OPERATIONS



OPERATIONS SECTION CHIEF

- Develop operations portion of IAP.
- Brief and assign Operations Section personnel in accordance with the IAP.
- 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 IC.
- Respond to resource requests in support of NRDAR activities.

BRANCH DIRECTOR

- Develop with subordinates alternatives for Branch control operations.
- Attend planning meetings at the request of the OPS.
- Review Division/Group Assignment Lists (ICS Form 204) 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 OPS when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- Approve accident and medial reports originating within the Branch.

DIVISION/GROUP SUPERVISOR

- Implement IAP for Division/Group.
- Provide the IAP 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 IC and/or Resources Unit are 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 OPS.
- 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.

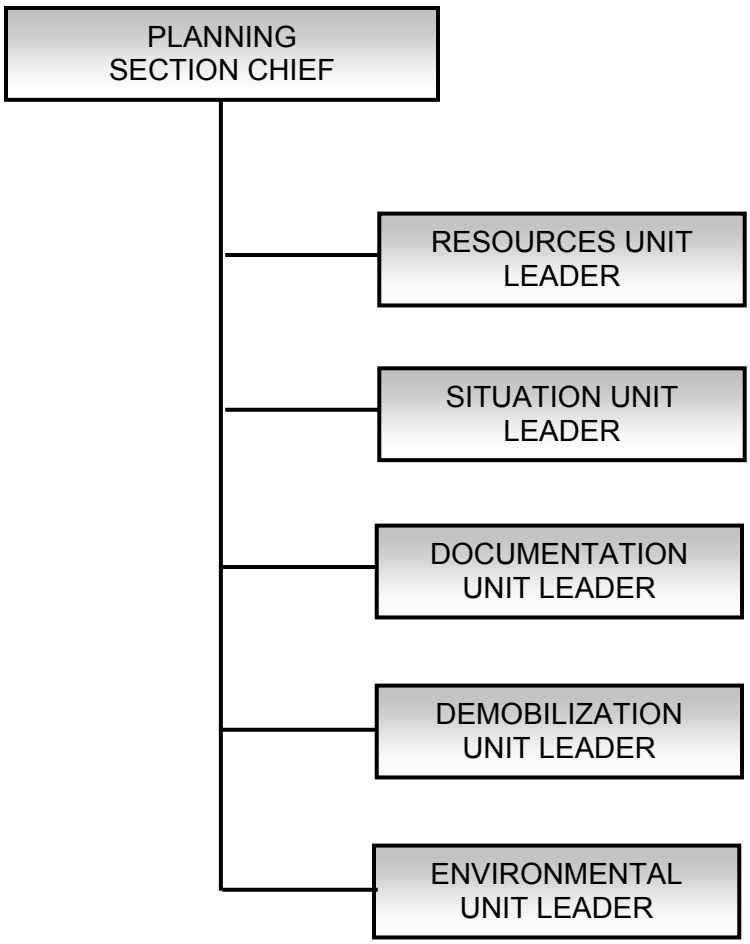
STAGING AREA MANAGER

- 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 OPS.
- Advise the OPS 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 IAP through the OPS. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- Perform operational planning for air operations.
- Prepare and provide Air Operations Summary Worksheet (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 FAA.
- Update air operations plans.
- Report to the OPS on air operations activities.
- Report special incidents/accidents.
- Arrange for an accident investigation team when warranted.

PLANNING



PLANNING SECTION CHIEF

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

RESOURCES UNIT LEADER

- Establish the check-in function at incident locations.
- Prepare Organization Assignment List (ICS Form 203) and Organization Chart (ICS Form 207).
- Prepare appropriate parts of Division Assignment Lists (ICS Form 204).
- Prepare and maintain the ICP 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 PSC.
- Prepare the Incident Status Summary Form (ICS Form 209).
- 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.

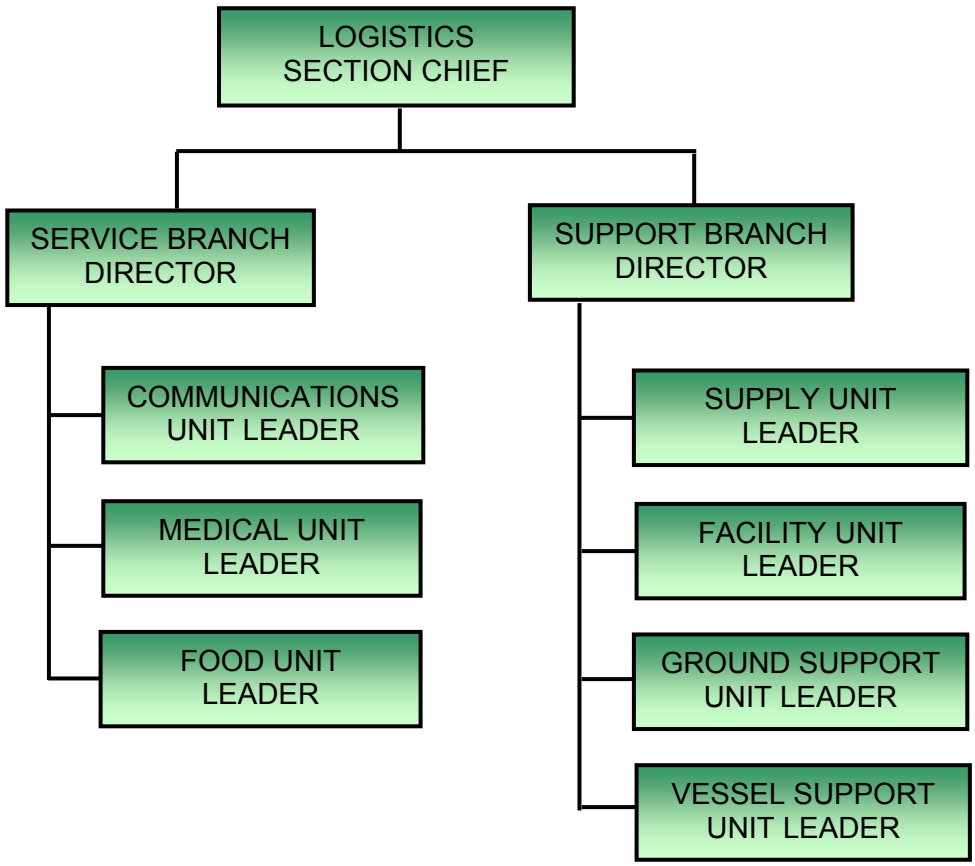
DEMOBILIZATION UNIT LEADER

- 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 offsite).
- 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 PSC 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., 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 FOSC'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 CHIEF

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

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 IAP.
- Organize and prepare assignments for Service Branch personnel.
- Coordinate activities of Branch Units.
- Inform the LSC of Branch activities.
- Resolve Service Branch problems.

COMMUNICATIONS UNIT LEADER

- Prepare and implement the Incident Radio Communications Plan (ICS Form 205).
- 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).
- 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 LSC 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 LSC 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 IAP 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 IAP.
- Participate in Logistics Section/Support Branch planning activities.
- Determine requirements for each facility, including the ICP.
- 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, cleanup).
- Demobilize Base and Camp facilities.
- Maintain facility records

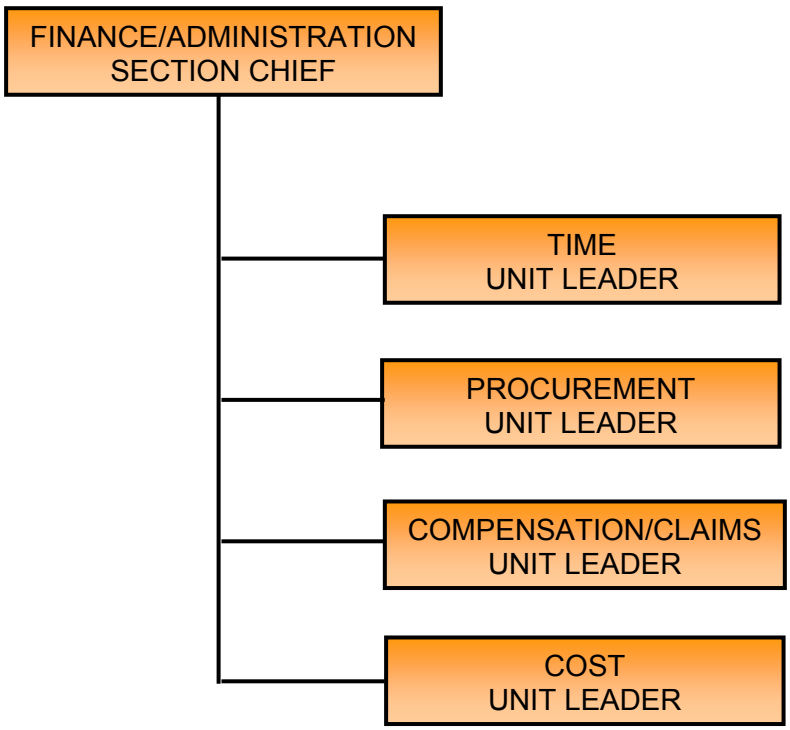
GROUND SUPPORT UNIT LEADER

- 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, IAW requests from the LSC or Support Branch Director.
- Collect information on rented equipment.
- Requisition maintenance and repair supplies (e.g., fuel, spare parts, etc.).
- 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 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 SO and LO (or Agency Representatives if no LO 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 Incident Medical Plan (ICS Form 206).
- 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.

5.0 RESPONSE PLANNING

5.1 INCIDENT ACTION PLAN

Emergency response activities are planned and coordinated through the use of an Incident Action Plan (IAP) which is developed for each Operational Period of a response by the Incident Management Team. For small responses, an ICS 201 (Incident Briefing Form provided in Figure 5.1), 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 ICS forms. These forms include, but are not limited to:

ICS FORM NUMBER	FORM TITLE	PREPARED BY*	PLAN LOCATION
201	Incident Briefing	Initial Response IC	Figure 5.1
None	ICS IAP Cover	Situation Unit Leader	Figure 5.2
202	Incident Objectives	Planning Section Chief	Figure 5.3
203	Organization Assignment List	Resources Unit Leader	Figure 5.4
204	Assignment List	Operations Section Chief & Resources Unit Leader	Figure 5.5
205	Incident Radio Communications Plan	Communications Unit Leader	Figure 5.6
206	Medical Plan	Medical Unit Leader	Figure 5.7
232	Resources at Risk Summary	Situation Unit Leader	Figure 5.8
SSP	Site Safety Plan	Safety Officer	Figure 5.9

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

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

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

5.2 SITE SAFETY PLAN

Site Safety Plans (SSP) are required by OSHA (29CFR1910.120(b)(4)) for all hazardous waste operations. The SSP should address all on-site operations and hazardous as well as on-site emergency procedures. A template for use in producing an SSP is provided as Figure 5.9.

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

NRC Incident No. #_____

FIGURE 5.1

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:

NRC Incident No. #_____

FIGURE 5.1 (Cont'd)

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

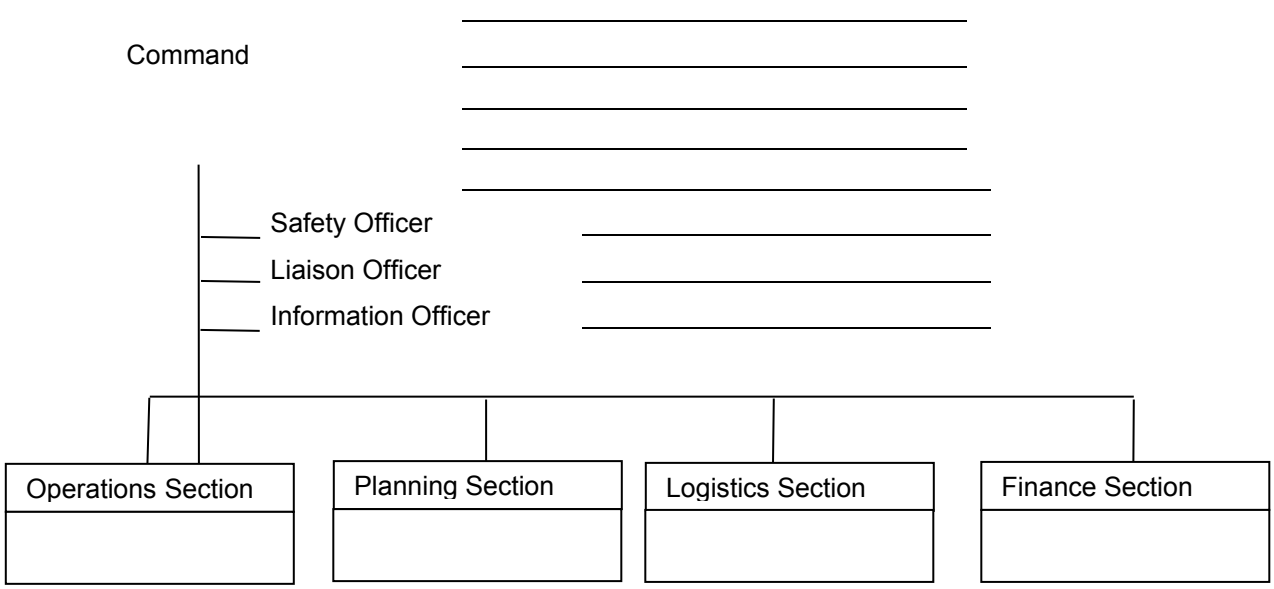
5. Initial Response Objectives, Current Actions, Planned Actions

NRC Incident No. #_____

FIGURE 5.1 (Cont'd)

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

6. Current Organization (fill in additional appropriate organization)



NRC Incident No. #_____

FIGURE 5.1 (Cont'd)

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)

FIGURE 5.2

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

3. Approved by Incident Commander(s):

ORG	NAME

INCIDENT ACTION PLAN

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

- ☐ ICS 202-CG (Response Objectives)
- ☐ ICS 203-CG (Organization List) – OR – ICS 207-CG (Organization Chart)
- ☐ ICS 204-CGs (Assignment Lists)
  One Copy each of any ICS 204-CG attachments:
- ☐ ICS 205-CG (Communications Plan)
- ☐ ICS 206-CG (Medical Plan)
- ☐ ICS 208-CG (Site Safety Plan) or Note SSP Location _____
- ☐ Map/Chart
- ☐ Weather forecast / Tides/Currents

Other Attachments

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

4. Prepared by: **Date/Time**

FIGURE 5.3

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**

FIGURE 5.4

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	
Intel Unit	
Scientific Unit	
Documentation Unit	
Demobilization Unit	
Technical Specialists	

6. LOGISTICS SECTION

Chief	
Deputy	
a. Support Branch	
Director	
Supply Unit	
Facilities Unit	
Transportation 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**

FIGURE 5.5

1. Incident Name	2. Operational Period (Date/Time) From: To:	Assignment List ICS 204-CG
3. Branch	4. Division/Group/Staging	

5. Operations Personnel Name Affiliation Contact # (s)

Operations Section Chief: _____

Branch Director: _____

Division/Group Supervisor/STAM: _____

6. Resources Assigned "X" indicates 204a attachment with additional instructions

Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# Of Persons	Reporting Info/Notes/Remarks	☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐
					☐

7. Work Assignments

8. Special Instructions

9. Communications (radio and/or phone contact numbers needed for this assignment)

Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager	

Emergency Communications

Medical _____ Evacuation _____ Other _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

FIGURE 5.5 (Cont'd)

1. Incident Name	2. Operational Period (Date/Time) From: To:	ASSIGNMENT LIST ATTACHMENT ICS 204a-CG
3. Branch	4. Division/Group	
5. Strike Team/Task Force/Resource (Identifier)	6. Leader	7. Assignment Location

8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations

Approved Site Safety Plan Located at:

9. Other Attachments (as needed)

☐ Map/Chart ☐ Weather Forecast/Tides/Currents ☐ _____

☐ _____ ☐ _____ ☐ _____

10. Prepared by: Date/Time	11. Reviewed by (PSC): Date/Time	12. Reviewed by (OSC): Date/Time

FIGURE 5.6

1. Incident Name	2. Operational Period (Date / Time) From: To:	INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared by: (Communications Unit) **Date / Time**

INCIDENT RADIO COMMUNICATIONS PLAN ICS 205-CG (Rev.07/04)

FIGURE 5.6 (Cont'd)

1. Incident Name	2. Operational Period (Date / Time) From: To:	COMMUNICATIONS LIST ICS 205A-CG

3. Basic Local Communications Information

Assignment	Name	Method(s) of contact (radio frequency, phone, pager, cell #(s), etc.)

4. Prepared by: (Communications Unit) **Date / Time**

FIGURE 5.7

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

FIGURE 5.8

1. Incident Name	2. Operational Period (Date/Time) From: To:	RESOURCES AT RISK SUMMARY ICS 232-CG

3. Environmentally-Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and/or Physical Location	Site Issues

Narrative

5. Prepared by: (Environmental Unit Leader) **Date/Time**

RESOURCES AT RISK SUMMARY ICS 232-CG (Rev.07/04)

Date: _____ NRC Assigned Number _____

FIGURE 5.9
SITE SAFETY PLAN

I. General

☐ Platform	☐ Air	☐ Spill to Water	☐ Excavation	☐ Other: _____	AFE # _____

Facility: _____
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			
☐	☐	Flammable Atmosphere	☐	☐	Chemical/MSDS # _____			
		(Explosion Fire)			(Must be attached)			
☐	☐	Toxic Atmosphere: _____	☐	☐	Physical Hazard _____			
☐	☐	Boat Operations	☐	☐	Vapor Cloud			
☐	☐	Confined Space						
						☐	☐	Other* (see comments) _____

III. Testing & Monitoring (Check required items)

Tests are to be performed in the order listed.

Y	N		Continuous	Frequency	ACCEPTABLE ENTRY CONDITIONS: SPECIAL WORK PRACTICES OR PPE REQUIRED	PPLC ERT LEAVE AREA WORK EFFORTS SHOULD BE DIRECTED AT REDUCING CONCENTRATIONS
☐	☐	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 _____	As allowed by applicable standard(s) Acceptable for 5325 feet of elevation and below. Hot work is not permitted when LEL is greater than 10% in air.		

IV. Required Personal Protective Equipment (Check for required use) NOTE: PPLC EMPLOYEES DO NOT USE SCBA'S A RLINE RESP

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-OVV		☐ 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)

Date: _____ NRC Assigned Number _____

FIGURE 5.9
SITE SAFETY PLAN (Cont'd)

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

X. Monitoring Results

	Zone													
Oxygen	Time													
	Level													
	By													
LEL	Time													
	Level													
	By													
Hydrogen Sulfide	Time													
	Level													
	By													
Benzene	Time													
	Level													
	By													
VOC	Time													
	Level													
	By													
	Time													
	Level													
	By													

Date: _____ NRC Assigned Number _____

FIGURE 5.9
SITE SAFETY PLAN (Cont'd)

	Time													
	Level													
	By													
	Time													
	Level													
	By													
	Time													
	Level													
	By													

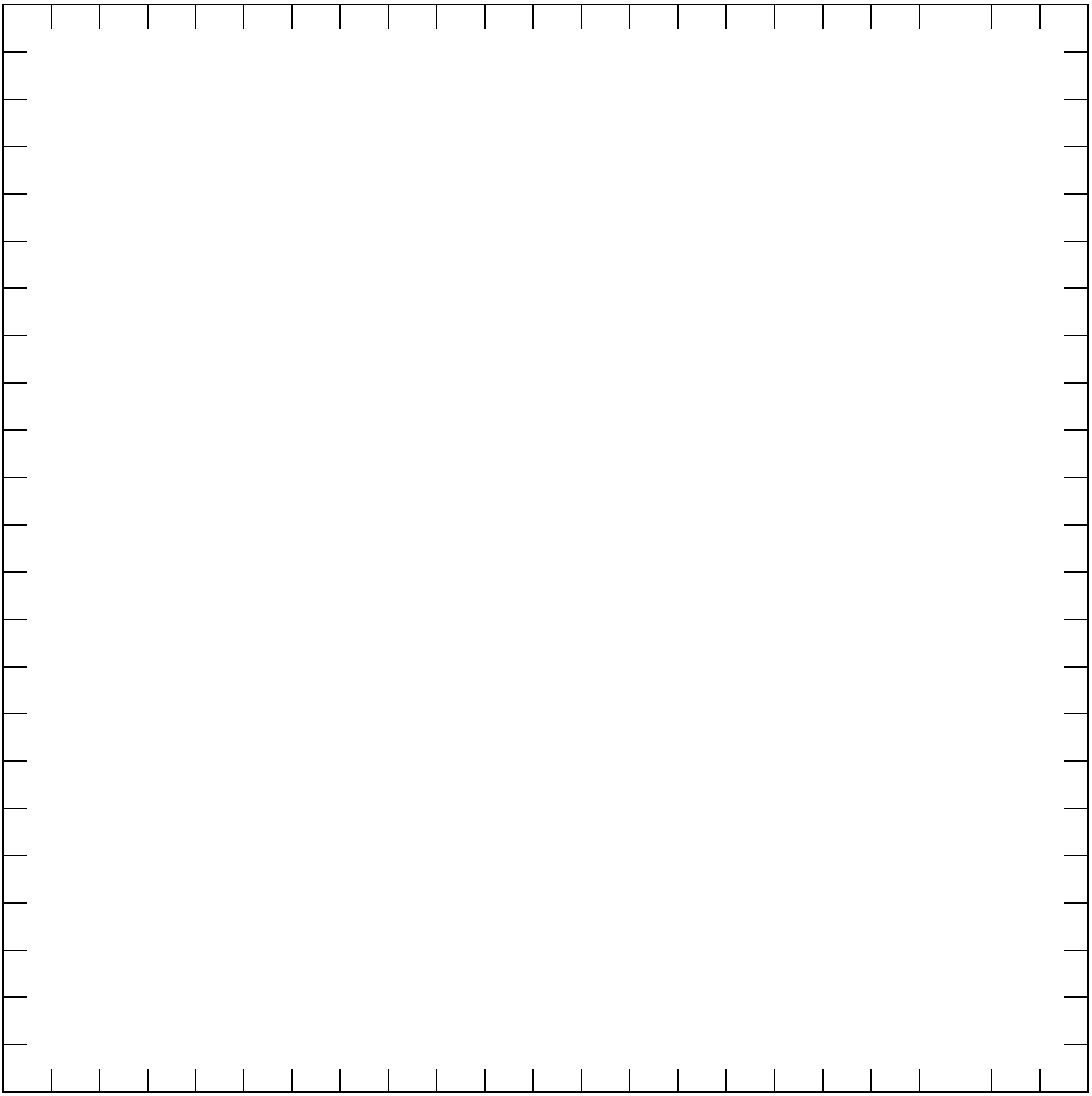
Equipment: Type: _____ Mfger: _____ Calibration / Expiration: _____
Type: _____ Mfger: _____ Calibration / Expiration: _____

Date: _____ NRC Assigned Number _____

FIGURE 5.9
SITE SAFETY PLAN (Cont'd)

XI. Work Area Diagram Map

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



Date: _____ NRC Assigned Number _____

FIGURE 5.9
SITE SAFETY PLAN (Cont'd)

XII. Work Site Signatures

Signature	
Incident Commander	
Safety Officer	

Other Site Personnel	Signature	Other Site Personnel	Signature

XIII. Authorizing Signature

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

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

6.0 SPILL IMPACT CONSIDERATIONS

6.1 CRITICAL AREAS TO PROTECT

The critical areas to protect are classified as having high, moderate, or low sensitivity to oil. Because a shoreline's sensitivity and type can change over time, the Shoreline Cleanup Assessment Team (SCAT) should perform on-site confirmations of sensitivity levels at the time of a spill. 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 that are high in productivity, abundant in many species, extremely sensitive, difficult to rehabilitate, or inhabited by threatened or endangered species. • Areas that consist of forested areas, brush/grassy areas, wooded lake areas, freshwater marshes, wildlife sanctuaries/refuges, and vegetated river and stream banks with vegetation present.

MODERATE SENSITIVITY
• Areas of moderate productivity, somewhat resistant to the effects of oiling. • Areas that 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 that 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 sensitive areas of extreme importance and must be considered when planning a response effort. Protection of the health and safety of the public and the environment, as well as the protection of the various socio-economic sensitivities, must also be promptly addressed in order to mitigate the extent of damage and minimize the cost of the clean-up effort.

All environmental and socio-economic sensitive areas 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
- Maps showing environmentally sensitive areas
- Other industry and private experts.

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

The environmental and socio-economic sensitive areas in the vicinity of the Pipeline Facility have been broken down into specific categories and identified in this Section.

Priority consideration will be given to those areas in the immediate vicinity of the Pipeline Facility property. Specific actions that will be considered (as appropriate) include:

- Containment of the spill as close as possible to the pipeline.
- Protection of shoreline areas to minimize environmental impact.
- Protection of the public boat ramp and private marinas.
- Protection of Dr. Martin Luther King Park.
- Protection of nearby industrial docks.
- Protection of Nonconnah Creek.
- Protection of the U.S. Corps of Engineers vessels and facilities.
- Protection of the water intakes.
- Protection of fleeted vessels/barges in the area.

To further clarify the location of the sensitive areas of concern, Environmental Sensitivity Maps (Figure 6.2) are provided in this Section.

6.3 WILDLIFE PROTECTION AND REHABILITATION

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

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

6.3.1 Endangered/Threatened Species

The U.S. Fish and Wildlife Service (USFWS) and related state agencies classify the status of various wildlife species in the potentially effected states. A summary of critical birds, reptiles, mammals, and plant species status as related to the Facility's operating areas (area of highest oil spill potential) is presented in Figure 6.1.

6.3.2 Wildlife Rescue

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

6.3 WILDLIFE PROTECTION AND REHABILITATION (Cont'd)

6.3.2 Wildlife Rescue (Cont'd)

The following are items that 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 spill impacted areas. Care must be taken to avoid taking actions that could be construed as disturbing the wildlife instead of being a deterrent.
  - Use of visual stimuli, such as inflatable bodies, owls, stationary figures, or helium balloons, etc.
  - Use of auditory stimuli, such as propane cannons, recorded sounds, or shell crackers
  - Use of herding with aircraft, boats, vehicles, or people (as appropriate)
  - Use of capture and relocation.

6.3.3 Search and Rescue - Points to Consider

- **Company 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 to the public that it may be illegal to handle wildlife without express authority from appropriate agencies. Provisions should be made to support an appropriate wildlife rehabilitation organization; 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 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 that are projected for impact.

6.5 VULNERABILITY ANALYSIS

(b) (7)(F)

Wetlands and other Sensitive Environments

Based on U.S. Fish and Wildlife Service National Wetland Inventory Data, wetlands exist on the Nonconnah Creek and Treasure Island in McKellar Lake. Those sensitive areas that potentially could be affected by a release from the Pipeline Facility are discussed in the following Sections. The maps in Figure 6.2 detail shoreline types and sensitive areas. Flora and fauna are always present and are sensitive to the effects of a pollution incident. All environmental areas deserve protection from pollution, but they must be prioritized during a response so as to protect the most sensitive and susceptible areas to pollution.

6.5 VULNERABILITY ANALYSIS (Cont'd)

Fish and Wildlife

According to the Tennessee Wildlife Resources Agency, President's Island is a wildlife management area in that the wildlife population may vary with annual seasons, river stage and migration patterns. Endangered species that may possibly be affected by a spill reaching the Mississippi River include the pallid sturgeon and the least tern.

The threatened bald eagle (Haliaeetus leucocephalus) is known to nest in several locations along the Mississippi River. Bald eagles are predominantly a winter migrant in this area. Bald eagles nest in transitional areas between forest and water, with nesting activity occurring between September and January. The bald eagle is very sensitive to human disturbance, and a 1,500-foot buffer should be maintained between nest sites and any construction-type activity. Nonconnah Creek contains bass, bluegill, and catfish.

Additional endangered/threatened species that may be affected by a spill can be found in Figure 6.1.

During a response situation, the USFWS and applicable state agencies should be contacted for information regarding wetlands and other sensitive environments. Upon contact the agencies will be able to:

- Identify and establish priorities for fish and wildlife, wetlands, and other sensitive environments requiring protection from any direct or indirect effects from a discharge.

- Identify potential environmental effects on fish and wildlife, wetlands, and other sensitive environments resulting from removal actions or countermeasures.

Lakes and Streams

The following waterbodies could be impacted by a release from the Pipeline Facility within the planning distance:

Water Bodies
McKellar Lake
Nonconnah Creek
Mississippi River

6.5 VULNERABILITY ANALYSIS (Cont'd)

Endangered Flora and Fauna

The endangered flora and fauna that may be potentially impacted by a discharge originating at the Pipeline Facility are detailed in Figure 6.1. USFWS and applicable State agencies will be contacted for information regarding endangered species.

Recreational Areas

The following recreational areas could be impacted by a release from the Pipeline Facility within the planning distance.

Parks and Marinas
Dr. Martin Luther King Riverside Park
Buttercup Marina to Fuller State Park
Mississippi River Marina
T.O. Fuller State Park
T.O. Fuller Golf Course

Other Areas of Economic Importance

The Memphis International Airport is located within the planning distance. The shut down of that would cause a variety of economic impacts.

6.6 CONTAINMENT AND RECOVERY OF SPILLED PRODUCT

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

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

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

6.6.1 Spill on Land (Soil Surfaces)

- **Confinement Methods**

  Product can be trapped in ditches and gullies by earth dams. Where excavating machinery is available, dams can be bulldozed to contain lakes of product. Dams, small and large, should be effectively employed to protect priority areas such as inlets to drains, sewers, ducts and watercourses. These can be constructed of earth, sandbags, absorbents, 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.

- **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.

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

6.6.2 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.

6.6.3 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.

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

6.6.3 Spill on Lake or Pond (Calm or Slow-Moving Water) (Cont'd)

- **Confinement Methods (Cont'd)**

  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.

6.6.4 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.

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

6.6.4 Spill on Small to Medium Size Streams (Fast-Flowing Creeks) (Cont'd)

- **Confinement Methods (Cont'd)**

  - 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 that 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 that 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.

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

6.6.4 Spill on Small to Medium Size Streams (Fast-Flowing Creeks) (Cont'd)

- **Confinement Methods (Cont'd)**

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

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

  - 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.

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

6.6.4 Spill on Small to Medium Size Streams (Fast-Flowing Creeks) (Cont'd)

- **Removal Methods (Cont'd)**

  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.

6.6.5 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 ½ 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.

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

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

- **Confinement Methods (Cont'd)**

  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 ½ 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 ½ 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 that has lagoons, etc., with a very low current action. The recovery would take place in the lagoons and not along the river bank.

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

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

- **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.

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

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

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

- **Removal Methods**

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

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

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP

6.7.1 Spills in Intertidal Environment

Exposed, Solid Man-made Structures

- **Description**

  - These are solid, man-made structures such as seawalls, groins, revetments, piers, and port facilities.
  - Many structures are constructed of concrete, wood, or metal.
  - They are built to protect the shore from erosion by waves, boat wakes, and currents, and thus are exposed to rapid natural removal processes.
  - Often there is no exposed substrate at low tide, but multiple habitats may be present.
  - Attached animals and plants are sparse to moderate.

- **Predicted Oil Behavior**

  - Oil is held offshore by waves reflecting off the steep, hard surfaces in exposed settings.
  - Oil readily adheres to the dry, rough surfaces, but it does not adhere to wet substrates.
  - The most resistant oil would remain as a patchy band at or above the high-tide line.

- **Response Considerations**

  - Cleanup is usually not required.
  - High-pressure water spraying may be conducted to remove risks of contamination of people or vessels or to improve aesthetic

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.1 Spills in Intertidal Environment (Cont'd)

Sand Beaches

- **Description**
  - These beaches are flat to moderately sloping and relatively hard-packed.
  - There can be heavy accumulations of wrack.
  - They are used by birds and turtles.
  - Upper beach fauna include ghost crabs and amphipods; lower beach fauna can be moderate, but highly variable.

- **Predicted Oil Behavior**
  - Light oil accumulations will be deposited as oily swashes or bands along the upper intertidal zone.
  - Heavy oil accumulations will cover the entire beach surface; oil will be lifted off the lower beach with the rising tide.
  - Maximum penetration of oil into fine- to medium-grained sand is about 10-15 cm, up to 25 cm in coarse-grained sand. Maximum penetration of oil into fine to medium-grained sand beaches is about 10-15 cm, and about 25 cm into coarse-grained sand beaches.
  - Burial of oiled layers by clean sand can be rapid (within one day), and burial to depths as much as one meter is possible if the oil comes ashore at the beginning of a depositional period.
  - Organisms living in the beach sediment may be killed by smothering or lethal oil concentrations in the interstitial water.
  - Biological impacts include temporary declines in infauna, that can affect important shorebird foraging areas.

- **Response Considerations**
  - These beaches are among the easiest shoreline types to clean.
  - Cleanup should concentrate on removing oil and oily debris from the upper swash zone once most of the oil has come ashore.
  - Manual cleanup, rather than road graders and front-end loaders, is advised to minimize volume of sand removed from the shore and requiring disposal.
  - All efforts should focus on preventing vehicular and foot traffic from mixing oil deeper into the sediments.
  - Mechanical reworking of lightly oiled sediments from the high-tide line to the upper intertidal zone can be effective along exposed beaches.

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.1 Spills in Intertidal Environment (Cont'd)

Riprap

- **Description**
  - Riprap structures are composed of cobble- to boulder-sized blocks of granite, limestone, concrete, or other materials.
  - Riprap structures are used as revetment and groins for shoreline protection, and as breakwaters and jetties around inlets and marinas.
  - Attached biota are generally sparse on exposed riprap.
  - They are common in highly developed waterfront areas.

- **Predicted Oil Behavior**
  - Deep penetration of oil between the blocks is likely.
  - Oil adheres readily to the rough surfaces of the blocks.
  - Uncleaned oil can cause chronic leaching until the oil hardens.

- **Response Considerations**
  - When the oil is fresh and liquid, high pressure spraying and/or water flooding may be effective if all liberated oil is recovered.
  - Heavy and weathered oils are more difficult to remove, requiring scraping and high-pressure, hot-water flushing.

Sheltered, Solid Man-made Structures

- **Description**
  - These are structures such as seawalls, groins, revetments, piers, and port facilities, constructed of concrete, wood, or metal.
  - Most structures are designed to protect a single lot, thus their composition, design, and condition are highly variable.
  - Often there is no exposed beach at low tide, but multiple habitats may be present.
  - There can be dense attachments of animal and plant life.
  - They are common in developed waterfront areas.

- **Predicted Oil Behavior**
  - Oil will adhere readily to the rough surface, particularly along the high-tide line, forming a distinct oil band.
  - The lower intertidal zone usually stays wet (particularly if algae-covered), preventing oil from adhering to the surface.

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.1 Spills in Intertidal Environment (Cont'd)

Sheltered, Solid Man-made Structures (Cont'd)

- **Response Considerations**
  - Seawalls are usually cleaned for aesthetic reasons or to prevent leaching of oil.
  - Low- to high-pressure spraying at ambient water temperatures is most effective when the oil is fresh.

6.7.2 Spills in Bays and Estuaries

Bays and Estuaries

- **Description**
  - Near coastal waters partially surrounded by land and more sheltered than offshore habitats.
  - Limited circulation and flushing, with depths frequently <30 feet.
  - Suspended sediment concentrations can be high.
  - Highly sensitive to oil spills, particularly where flushing rates are low and the probability of contact increases.
  - Many species spawn in these habitats during spring, and their sensitive early life stages can persist in shallow waters.
  - Large numbers of migratory or wintering waterfowl, wading, and diving birds are often found here. Bays and estuaries are also home to marine mammals and sea turtles.
  - Estuaries and bays are used by commercially or recreationally important finfish, shellfish, and other organisms that migrate seasonally.

- **Predicted Oil Behavior**
  - Oil can impact bottom habitats (benthic organisms) when water is shallow.
  - Stranded oil on nearby shorelines can become a prolonged source for oil re-released to the water column.
  - Tides and fresh water can substantially influence spilled oil movement.

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.2 Spills in Bays and Estuaries (Cont'd)

Bays and Estuaries (Cont'd)

- **Response Considerations**
  - Reducing impacts to organisms that live on or in the sea surface is often a high priority.
  - Reducing the extent of impacts to sensitive nearshore subtidal or intertidal habitats should be considered.
  - Spill response is not conducted from a shoreline, but from water-based vessels or aircraft.
  - Use of certain response options is seasonally limited to protect sensitive life histories.
  - Adverse effects to birds would be greatest during migration and overwintering when the birds form large flocks.

6.7.3 Spill on Vegetated River Bank

- **Description**
  - These areas are composed of low banks with grasses (subject to flooding) or steeper banks with trees going to the water's edge.
  - They are found in fresh or brackish water localities.
  - They are composed of a variety of plant species.

- **Predicted Oil Impact**
  - Light oil concentrations will coat the outer fringes of the area.
  - Heavy oil concentrations will penetrate into the area and heavily coat the plant and ground surfaces.
  - Biological impact may be severe if oil concentrations are heavy.
  - Oil persistence may be several months if not cleaned.
  - Odor and taste of fresh water supplies could be impacted by trace contamination.

- **Recommended Response Activity**
  - Cleanup should proceed cautiously.
  - Under light coatings, cleanup is probably unnecessary, under heavy accumulations, oil on the sediment surface might be removed to enable new growth.
  - Low-pressure spraying (ambient) may aid oil removal
  - Plant cutting should be closely supervised if undertaken.

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.3 Spill on Vegetated River Bank (Cont'd)

- **Least Adverse Habitat Impact**

  - Natural Recovery
    - Low impact for small or moderate-size spills and lighter oils
    - More impact for large spills of medium- or high-viscosity oils

  - Flooding
    - Operationally difficult and marginally effective for steep banks
    - Appropriate for gentle banks where persistent oil has pooled, assuming that the released oil can be directed towards recovery devices or sorbents
    - Use on heavy oils is likely to leave large amounts of residual oil in the environment
    - Use on gasoline spills may transport the oil to more sensitive habitats

  - Low-Pressure, Cold-Water Flushing
    - Effective for washing oil stranded on the banks into the water for recovery
    - Vegetation cover minimizes the potential for sediment erosion from flushing
    - Use on heavy oils is likely to leave large amounts of residual oil in the environment
    - Use on gasoline spills may transport the oil to more sensitive habitats

6.7.4 Spill on Freshwater Marshes/Swamps

- **Description**

  - Marshes are characterized by typical soft-bodied, non-persistent, herbaceous vegetation such as grasses.
  - Swamps have dense stands of water-tolerant shrubs and trees.
  - These areas have an extremely high degree of species diversity and abundance in flora and fauna; may harbor rare, threatened, or endangered species on the local, regional, or national level.
  - They are extremely valuable as breeding and nursery areas for wetland-dependent amphibians and reptiles, as well as other fish, birds, and mammals.
  - Sediment generally consists of organic rather than mineral soils, resulting in a rather soupy consistency, and making foot travel difficult to impossible.

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.4 Spill on Freshwater Marshes/Swamps (Cont'd)

- **Predicted Oil Impact**

  - Oil in any appreciable quantity may be very persistent because of minimal flushing and organic soils.
  - Degree of vegetation oiling is a function of tidal range and local topography.
  - Season of oiling is important - dormant vegetation is least sensitive to oil: blooming and seeding plants are most sensitive.
  - Resident biota are likely to be heavily impacted, particularly reptiles, amphibians, and crustaceans, with high mortality predicted.
  - Odor and taste of fresh water supplies could be impacted by trace contamination.

- **Recommended Response Activity**

  - These are high-priority areas necessitating the use of spill protection devises to limit oil spill impact; deflection or sorbent booms and skimmers.
  - Under light oiling, the best practice is to let the area recover naturally.
  - Any cleanup activity that would mix the oil into organically rich sediments should be avoided.
  - Manual pickup should be conducted from a floating platform (e.g., jonboat or inflatable).
  - Only the least-intrusive cleanup methods should be employed to avoid compounding the environmental impact of a spill.
  - Quick flushing and removal of oil while it is still fluid can reduce long-term impacts.

- **Least Adverse Habitat Impact**

  - Natural Recovery
    - Least impact for small to moderate spills and lighter oils; avoids damage often associated with cleanup activities
    - Some cleanup may be warranted where large numbers of animals are likely to become oiled during wetland use

  - Sorbents
    - Care is necessary during placement and recovery to minimize disturbance of substrate and vegetation
    - Overuse generates excess waste

6.7 SHORELINE AND HABITAT RESPONSE ZONE CLEANUP (Cont'd)

6.7.4 Spill on Freshwater Marshes/Swamps (Cont'd)

- **Least Adverse Habitat Impact (Cont'd)**

  - Flooding
    - Erosion of substrate and vegetation may be a problem
    - Can be used selectively to remove localized heavy oiling
    - Can be difficult to direct water and oil flow towards recovery devices
    - Use on heavy oils is likely to leave large amounts of residual oil in the environment
    - Use on gasoline spills may transport the oil to more sensitive habitats

  - Low-Pressure, Cold-Water Flushing
    - If water pressures are too high, the substrate and vegetation may be disturbed
    - Use on heavy oils is likely to leave large amounts of residual oil in the environment
    - Use on gasoline spills may transport the oil to more sensitive habitats

6.7.5 Spill on Inland River Bluffs

- **Description**

  - Usually found along eroding river banks.
  - Composed of mixed grain sizes (from silt to gravel).
  - Biological activity usually low.

- **Predicted Oil Behavior**

  - Oil forms band along top of water line. Contamination can penetrate into sandy sediments.
  - Wave or current action can flush off wastes within days or weeks.

- **Response Considerations**

  - Cleanup usually not necessary due to short residence time.
  - Manual labor can be used to scrape oil and wastes from surfaces.
  - Avoid removing sediments where possible.
  - Avoid mechanical cleanup (limited access and steep slopes).

6.8 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 6.1

ENDANGERED/THREATENED SPECIES LISTING

As listed in the U.S. Fish and Wildlife Threatened and Endangered Species System (TESS)

E - Endangered
T - Threatened

Tennessee

ANIMALS		
Status	**Common Name**	**Scientific Name**
E	Acornshell, southern	*Epioblasma othcaloogensis*
E	Gray bat	*Myotis grisescens*
E	Indiana bat	*Myotis sodalis*
E	Bean, Cumberland	*Villosa trabalis*
E	Bean, Purple	*Villosa perpurpurea*
E	Blossom, green	*Epioblasma turolosa gubernaculum*
E	Blossom, turgid	*Epioblasma florentina florentina*
E	Catspaw	*Epioblasma obliquata obliquata*
T	Chub, slender	*Erimystax cahni*
T	Chub, spotfin Entire	*Erimonax monachus*
E	Combshell, Cumberlandian	*Epioblasma brevidens*
E	Combshell, upland	*Epioblasma metastriata*
E	Crayfish, Nashville	*Orconectes shoupi*
T	Dace, blackside	*Phoxinus cumberlandensis*
E	Darter, amber	*Percina antesella*
E	Darter, bluemask	*Etheostoma sp.*
E	Darter, boulder	*Etheostoma wapiti*
E	Darter, dusktail	*Etheostoma percnurum*
T	Darter, slackwater	*Etheostoma boschungi*
T	Darter, snail	*Percina tanasi*
E	Elktoe, Appalachian	*Alasmidonta raveneliana*
E	Elktoe, Cumberland	*Alasmidonta atropurpurpea*
E	Fanshell	*Cyprogenia stegaria*
E	Kidneyshell, triangular	*Ptychobranchus greenii*
E	Lampmussel, Alabama	*Lampsilis virescens*
E	Lilliput pale (pearlymussel)	*Toxolasma cylindrellus*
E	Logperch, Conasauga	*Percina jenkinsi*
E	Madtom, pygym	*Noturus stanauli*
E	Madtom, smoky Entire	*Noturus baileyi*
T	Madtom, yellowfin	*Noturus flavippinis*
E	Marstonia, royal (snail)	*Pyrgulopsis ogmorhaphe*
E	Moccasinshell, Coosa	*Medionidus parvulus*

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

Tennessee (Cont'd)

ANIMALS		
Status	**Common Name**	**Scientific Name**
E	Monkeyface, Appalachian	Quadrula sparsa
E	Monkeyface, Cumberland	Quadrula intermedia
E	Mucket, pink	Lampsillis abrupta
E	Mussel, oyster	Epioblasma capsaeformis
E	Pearlymussel, birdwing	Conradilla caelata
E	Pearlymussel, cracking	Hemistena lata
E	Pearlymussel, dromedary	Dromus dromas
E	Pearlymussel, littlewing	*Pegias fabula*
E	Pigtoe, Cumberland	*Pleurobema gibberum*
E	Pigtoe, finerayed	*Fusconaia cuneolus*
E	Pigtoe, rough	*Pleurobema georgianum*
E	Pimpleback, orangefoot	*Plethobasus cooperianus*
E	Puma (=cougar), eastern	*Puma (=Felis) concolor couguar*
E	Rabbitsfoot, rough	*Quadrula cylindrica strigillata*
E	Riffleshell, tan	*Epioblasma florentina walkeri (=E. walkerii)*
E	Ring pink (mussel)	*Obovaria retusa*
E	Riversnail, Anthony's	*Anthearnia anthonyi*
T	Shiner, blue	*Cyprinella caerulea*
T	Snail, painted snake coiled forest	*Anguispira picta*
E	Spider, spruce-fir moss	*Michrohexura montivaga*
E	Squirrel, Carolina northern flying	*Glaucomys sabrinus coloratus*
E	Sturgeon, pallid	*Scaphirhynchus albus*
E	Tern, least interior pop.	*Sterna antillarum*
E	Wartyback, white pearlymussel	*Plethobasus cicatricosus*

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

Tennessee (Cont'd)

PLANTS		
Status	**Common Name**	**Scientific Name**
E	Aster, Ruth's golden	Pityopsis ruthii
E	Avens, spreading	Geum radiatum
E	Bladderpod, Spring Creek	Lesquerella perforata
E	Bluet, Roan Mountain	Hedyotis purpurea var. montana
E	Coneflower, Tennessee purple	Echinacea tennesseensis
T	Fern, America, hart's-tongue	Asplenium scolopendrium var. americanum
T	Goldenrod, Blue Ridge	Solidago spithamaea
E	Grass, Tennessee yellow-eyed	*Xyris tennesseensis*
E	Ground-plum, Guthrie's	*Astragalus bibullatus*
E	Lichen, rock gnome	*Gymnoderma lineare*
E	Pitcher-plant, green	*Sarracenia oreophila*
T	Pogonia, small whorled	*Isotria medeoloides*
T	Potato-bean, Price's	*Apios priceana*
E	Prairie-clover, leafy	*Dalea foliosa*
E	Rock-cress, Braun's	*Arabis perstellata*
T	Rosemary, Cumberland	*Conradina verticillata*
E	Sandwort, Cumberland	*Arenaria cumberlandensis*
T	Skullcap, large-flowered	*Scutellaria montana*
T	Spiraea, Virginia	*Spiraea virginiana*

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

Arkansas

ANIMALS		
Status	**Common Name**	**Scientific Name**
E	Bat, gray	*Myotis grisescens*
E	Bat, Indiana	*Myotis sodalis*
E	Bat, Ozark big-eared	*Corynorhinus (=Plecotus) townsendii ingens*
E	Beetle, American burying	*Nicrophorus americanus*
T	Cavefish, Ozark	*Amblyopsis rosae*
E	Crayfish, cave	*Cambarus aculabrum*
E	Crayfish, cave	*Cambarus zophonastes*
T	Darter, leopard	*Percina pantherina*
T	Eagle, bald lower 48 States	*Haliaeetus leucocephalus*
T	Fatmucket, Arkansas	*Lampsilis powell*
E	Mucket, pink (pearlymussel)	*Lampsilis abrupta*
E	Mussel, scaleshell	*Leptodea leptodon*
E	Pearlymussel, Curtis	*Epioblasma florentina curtisii*
E	Pocketbook, fat	*Potamilus capax*
E	Pocketbook, Ouachita rock	*Arkansia wheeleri*
E	Pocketbook, speckled	*Lampsilis streckeri*
T	Shagreen, Magazine Mountain	*Mesodon magazinensis*
T	Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*
E	Sturgeon, pallid	*Scaphirhynchus albus*
E	Tern, least interior pop.	*Sterna antillarum*
E	Woodpecker, ivory-billed	*Campephilus principalis*
E	Woodpecker, red-cockaded	*Picoides borealis*

Arkansas

PLANTS		
Status	**Common Name**	**Scientific Name**
T	Bladderpod, Missouri	*Lesquerella filiformis*
E	Clover, running buffalo	Trifolium stoloniferum
E	Harperella	*Ptilimnium* nodosum
T	(no common name)	*Geocarpon* minimum
T	Orchid, eastern prairie fringed	*Platanthera* leucophaea
E	Pondberry	*Lindera* melissifolia

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

Mississippi

ANIMALS		
Status	**Common Name**	**Scientific Name**
E	Bat, Indiana	*Myotis sodalis*
T	Bear, Louisiana black	Ursus americanus luteolus
E	Clubshell, black	*Pleurobema curtum*
E	Clubshell, ovate	*Pleurobema perovatum*
E	Clubshell, southern	*Pleurobema decisum*
E	Combshell, southern	*Epioblasma penita*
E	Crane, Mississippi sandhill	Grus canadensis pulla
T	Darter, bayou	Etheostoma rubrum
E	Frog, Mississippi gopher	Rana capito sevosa
T	Moccasinshell, Alabama	Medionidus acutissimus
T	Mucket, orangeacre	Lampsilis perovalis
E	Pigtoe, flat	Pleurobema marshalli
T	Plover, piping	Charadrius melodus
E	Pocketbook, fat	Potamilus capax
T	Sea turtle, green	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
E	Stirrupshell	Quadrula stapes
E	Sturgeon, Alabama	Scaphirhynchus suttkusi
T	Sturgeon, gulf	Acipenser oxyrinchus desotoi
E	Sturgeon, pallid	Scaphirhynchus albus
E	Tern, least interior pop.	Sterna antillarum
T	Turtle, ringed map	Graptemys oculifera
T	Turtle, yellow-blotched map	Graptemys flavimaculata
E	Whale, finback	Balaenoptera physalus
E	Whale, humpback	Megaptera novaeangliae
E	Woodpecker, red-cockaded	Picoides borealis

FIGURE 6.1

ENDANGERED/THREATENED SPECIES LISTING (Cont'd)

Mississippi (Cont'd)

PLANTS		
Status	**Common Name**	**Scientific Name**
E	Chaffseed, American	*Schwalbea americana*
E	Pondberry	*Lindera melissifolia*
T	Potato-bean, Price's	*Apios priceana*
E	Quillwort, Louisiana	*Isoetes louisianensis*

FIGURE 6.2

ENVIRONMENTAL SENSITIVITY MAPS

The following Environmental Sensitivity Maps have been prepared utilizing Arc Map (GIS). The maps include a key to the reference symbols located on each map.

These maps are to be utilized as guidelines only. During a real response effort, Federal, State, and Local agencies should be contacted to provide further assistance in the proper identification and protection of the various environmental and socio-economic sensitive areas.

The Company places maximum priority upon the protection of the environment that may be endangered and the immediate commitment of response resources to protect all sensitive and endangered areas.

Finally, maps of the Mississippi Valley Division-Mississippi River have been provided by the U.S. Army Corps of Engineers.

APPENDIX A

RESPONSE EQUIPMENT / RESOURCES

RESPONSE EQUIPMENT / RESOURCES

FIGURES

The following sections outline the various response equipment/resources available from the Pipeline Facility, other Company facilities, Oil Spill Removal Organizations, and other outside resources.

A.1 PIPELINE FACILITY RESPONSE RESOURCES

The Pipeline Facility's response equipment is identified in Figure A.1. The Company has contracts in place with Oil Spill Removal Organizations and other clean-up contractors that are deployed, as necessary. Figure A.2 lists the contracted Oil Spill Removal Organizations.

The Qualified Individual has the authority to activate other Company resources or that of private contractors and other experts and consultants, as the situation demands.

A.2 CONTRACT RESOURCES

The Company has agreements in place with the OSRO that would be activated, if necessary. 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 Section 2.2.** Figure A.3 is a description of the USCG classifications according to the OSRO response capabilities. Figure A.4 includes the current OSRO contracts and their annual deployment letters. *(Note: The Company receives annual PREP letters to ensure that each OSRO has a comprehensive maintenance program and applicable training / drills programs in place.*

A.3 EXPERTS AND CONSULTANTS

The Company maintains a relationship with various environmental and technical consultants that can provide support in the event of an emergency incident. These consultants can provide expertise and support in the areas of emergency response management, environmental services, site assessment, permitting, waste treatment, recycling, dewatering, hazardous waste disposal, and remediation.

A.4 VOLUNTEERS

Volunteers will not be utilized by the Company for the response operations. All volunteers will be referred to the State or Federal On-Scene Coordinator.

A.5 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.

A.5 COMMUNICATIONS (Cont'd)

A.5.1 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 2.1, 2.2 and 2.5).
- A list of emergency telephone numbers for various external resources such as the fire and police department, medical, and regulatory agencies (Figure 2.5).
- A list of emergency telephone numbers for contract response resources (Figure 2.2).

A.5.2 Communications Equipment

Field communications during a spill response to a small or medium discharge will be handled via the existing Company communications network. This network will utilize existing radios, telephones, beepers, 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 other Company and contract resources as the situation demands.

A.5.3 Communication Types

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

Telephone (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.

Pagers - Pagers are used for rapid notification to field personnel when radio and telephone resources are limited.

A.5 COMMUNICATIONS (Cont'd)

A.5.3 Communication Types (Cont'd)

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

FACILITY RESPONSE EQUIPMENT

Date of Last Update:	**Last Inspection or Response Equipment Test Date:**
Inspected By:	**Last Deployment Drill Date:**
Inspection Frequency:	**Deployment Frequency:**

SKIMMERS/PUMPS

Type/Model/ Year	Operational Status	Quantity	Capacity bbl/day	Daily Effective Recovery Rate	Storage Location(s)	Date Fuel Last Changed
		NONE				

BOOM

Type/Model/ Year	Operational Status	Number	Size (Length)	Containment Area	Storage Location(s)
		NONE			

CHEMICAL DISPERSANTS

Type	Operational Status	Amount	Date Purchased	Treatment Capacity	Storage Location(s)	Date Changed
		NONE				

FIGURE A.1 (Cont'd)

FACILITY RESPONSE EQUIPMENT (Cont'd)	
Date of Last Update:	Last Inspection or Response Equipment Test Date:
Inspected By:	Last Deployment Drill Date:
Inspection Frequency:	Deployment Frequency:

DISPERSANT DISPENSING EQUIPMENT

Type/Year	Operational Status	Capacity	Storage Location(s)	Response Time
	NONE			

SORBENTS

Brand Name/Type	Operational Status	Size	Quantity	Storage Location(s)
	NONE			

HAND TOOLS

Type/Year	Operational Status	Quantity	Storage Location(s)
	NONE		

COMMUNICATION EQUIPMENT

Type/Year	Operational Status	Quantity	Storage Location(s)/Number
	NONE		

FIRE FIGHTING AND PERSONNEL PROTECTIVE EQUIPMENT

Type/Year	Operational Status	Quantity	Storage Location(s)
	NONE		

OTHER EQUIPMENT

Type/Year	Operational Status	Quantity	Storage Location(s)
	NONE		

FIGURE A.2
CONTRACTED RESPONSE RESOURCES
SECTOR LOWER MISSISSIPPI RIVER CAPTAIN OF THE PORT (COTP) ZONE

USCG Classified Oil Spill Removal Organization (OSRO)							
OSRO Name	Response Time	Environment Type	Facility Classification Level				High Volume Port
			MM	W1	W2	W3	
U.S. Environmental Services, Inc. (USES)	1 Hour	River/Canal	X	X	X	X	
		Inland	X	X	X		
National Response Corporation	6 Hours	River/Canal	X	X	X	X	No
		Inland	X	X	X	X	
		Inland	X				

Note: Classification ratings taken from the USCG's internet site www.uscg.mil/hq/nsfweb/NSF/onlinedocosro.html.

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 [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Rivers/Canals [1]			
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
W 1	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
W 2	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
W 3	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
W 1	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
W 2	Protective Boom: 30,000*ft EDRC: 12,500 bbls TSC: 25,000 bbls	All Ports: 36 hours	All Ports: 42 hours
W 3	Protective Boom: 30,000*ft EDRC: 25,000 bbls TSC: 50,000 bbls	All Ports: 60 hours	All Ports: 66 hours

FIGURE A.3

USCG OSRO CLASSIFICATIONS (Cont'd)

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 [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Inland [1]			
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
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Ports: 24 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	Protective Boom: 30,000* 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
W [3]	Protective Boom: 30,000* 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
Nearshore			
MM	Protective Boom: 8,000* ft EDRC: 1,200 bbls TSC: 2,400 bbls	High Volume Ports: 6 hours Other Locations: 12 hours	High Volume Ports: 12 hours Other Locations: 24 hours (for open ocean, plus travel time from shore)
W [1]	Protective Boom: 30,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 12 hours Other Locations: 24 hours	High Volume Ports: 12 hours Other Locations: 24 hours
W [2]	Protective Boom: 30,000* ft EDRC: 25,000 bbls TSC: 50,000 bbls	High Volume Ports: 30 hours Other Locations: 36 hours	High Volume Ports: 36 hours Other Locations: 48 hours
W [3]	Protective Boom: 30,000* ft EDRC: 50,000 bbls TSC: 100,000 bbls	High Volume Ports: 54 hours Other Locations: 60 hours (for open ocean, plus travel time from shore)	High Volume Ports: 60 hours Other Locations: 72 hours (for open ocean, plus travel time from shore)

FIGURE A.3

USCG OSRO CLASSIFICATIONS (Cont'd)

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 [2,3]	Maximum Facility Response Times	Maximum Vessel Response Times
Offshore			
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
W [1]	Protective Boom: 15,000* ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 24 hours Other Ports: 48 hours	High Volume Ports: 24 hours Other Ports: 48 hours
W [2]	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
W [3]	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
W [1]	Protective Boom: 0 ft EDRC: 12,500 bbls TSC: 25,000 bbls	High Volume Ports: 6 hours Other Ports: 12 hours	High Volume Ports: 12 hours Other Ports: 24 hours
W [2]	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
W [3]	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. t 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

U.S. Environmental Services, Inc.

October 13, 2003

PREMCOR
Attn: Mr. Glen Mohler
543 West Mallory Avenue
Memphis, TN 38109

Re: OSRO Letter of Intent

Dear Mr. Mohler:

This letter serves as an agreement between United States Environmental Services, L.L.C., ("USES"), an oil and hazardous material response contractor, and PREMCOR that, USES agrees to be named in Premcor emergency response plans and in the event of a discharge from one of PREMCOR's facilities (listed below), USES will provide emergency response services, including personnel and available equipment to contain and remediate product releases as needed. Our response time will be in accordance with the requirements of the Oil Pollution Act of 1990. USES is an approved Oil Spill Response Organization (OSRO) for the United States Coast Guard COTP Memphis. USES currently has a signed services agreement with Premcor, and under this agreement USES agrees to provide emergency response services on a 24-hour per day, 365-day per year basis for Premcor Memphis-area facilities, including.

- Memphis Refinery – 543 West Mallory Ave., Memphis
- Riverside Terminal – 1237 Riverside Blvd., Memphis
- West Memphis Terminal – 1282 S. Eight St., West Memphis
- Memphis-area pipelines and pipeline breakout tankage in the Memphis area, which includes parts of Northern Mississippi and Western Arkansas.

In the event that USES's resources are already committed to another incident, USES will assist you in obtaining response services from another contractor. USES looks forward to a growing relationship and we are proud to be a part of the Premcor team. If you require additional information, please feel free to contact us at (662) 280-3232.

Sincerely,

Daniel Barrett
Manager of Business Development / Project Manager
United States Environmental Services, LLC

1855 Veterans Drive
Southaven, MS 38671
Phone (662) 280-3232 • Fax: (662) 280-3011

January 1, 2014

Valero MKS Logistics, LLC
Attn: Mr. Jay Ross
772 Wingo Road
Byhalia, MS 38611

Ref: Valero MKS Logistics, LLC LOI January 1st, 2014 – December 31st, 2015

Dear Mr. Ross:

This letter serves as an agreement between United States Environmental Services, L.L.C., ("USES"), an Oil and Hazardous Material Response contractor, and Valero MKS Logistics, LLC that in the event of a discharge from the Collierville Station facility or Any of your Memphis Area Pipeline System, USES will provide emergency response services, including personnel and equipment. Our response time will be in accordance with the requirements of the Oil Pollution Act of 1990. In the event that USES's resources are already committed to another incident, USES will assist you in obtaining response services from another contractor.

USES is a Coast Guard-classified Oil Spill Removal Organization (OSRO), and we comply with National Preparedness for Response Exercise Program (PREP) guidelines. Enclosed are our OSRO classifications and our latest PREP report. If you require additional information, please fee free to call.

Sincerely,

Brian P. Carpenter

Brian P. Carpenter
Director, Oil Spill Response & Preparedness

Encl: OSRO Classifications
PREP Report

CORPORATE OFFICES • 15109 Heathrow Forest Drive, Suite 150, Houston, TX 77032 • (281) 606-4960 • Fax (281) 606-4961
WORLDWIDE HEADQUARTERS • 365 Canal Street, Suite 2520, New Orleans, LA 70131 • (504) 279-9930 • Fax (504) 566-8309
2809 E. Judge Perez Drive, P.O. Box 949, Meraux, LA 70075 • (504) 279-9934 • Fax (504) 279-9926
6338 Highway 73, Geismar, LA 70734 • (225) 673-4200 • Fax (225) 677-9549
42156 Highway 23, P.O. Box 830, Venice, LA 70091 • (504) 534-2744 • Fax (504) 534-7058
1075 Mendell Davis Drive, Jackson, MS 39212 • (601) 372-3232 • Fax (601) 372-3356
13032 Highway 67 North, Biloxi, MS 39532 • (228) 396-3866 • Fax (228) 396-3836
1855 Veterans Drive, Southaven, MS 38671 • (662) 280-3232 • Fax (662) 280-3011
3750 Halls Mill Road, Mobile, AL 36693 • (251) 662-3500 • Fax (251) 662-3400
228 Regency Park, Alabaster, AL 35007 • (205) 663-8737 • Fax (205) 663-4404
301 Old Stone Bridge, Bldg. 3, Suite 301, Goodlettsville, TN 37032 • (615) 855-0010 • Fax (615) 855-0077
950 Senco Avenue, Deer Park, TX 77536 • (281) 867-4100 • Fax (281) 867-4101
261 Newman Drive, Sherwood, AR 72117 • (501) 753-0522 • Fax (501) 753-1022

24-Hour Emergency Response (888) 279-9930 All Service Locations

FIGURE A.5

National Response Corporation

NATIONAL RESPONSE CORPORATION

SPILL RESPONSE CONTRACT CERTIFICATION

National Response Corporation (NRC), by its President, hereby certifies that the entities listed in Schedule 1 (the "Clients") have ensured, by contract with NRC, the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to a worst case discharge for the named Facilities in Schedule 1. NRC agrees that the Clients have the right to name NRC and its resources, including those within its Independent Contractor Network (ICN), for Oil Pollution Act of 1990 (OPA) coverage for the named Facilities in Schedule 1. NRC has filed its Spill Response Plan Appendix with the U.S. Coast Guard, and the Clients are authorized to reference this Appendix in their Facility Response Plan. This Appendix presently covers all ports in the U.S. East, West and Gulf Coasts, Great Lakes and the U.S. Caribbean. NRC reserves the right to rescind this authorization in the event of termination of its contractual arrangements with the Facilities.

Covered Facilities

(SEE ATTACHED SCHEDULE)

Acknowledged by:
National Response Corporation

Date: April 1, 2009

Steven A. Candito
President, NRC

3500 Sunrise Highway, Suite T103 • Great River, New York 11739
631-224 9141 (24 hours) • Fax 631-224 9082

NATIONAL RESPONSE CORPORATION

Covered Facilities:

Diamond Shamrock Refining and Marketing Company

- McKee-Stewart Pipeline System
- McKee-ConCarb Pipeline
- Turpin Terminal

Michigan Reutilization, LLC

- Arkansas City Asphalt Terminal

The Premcor Pipeline Co.

- Delaware City Pipeline
- Collierville Crude Pipeline
- Sun to Lucas Crude Pipeline
- Lucas to Valero Port Arthur Refinery Crude Pipeline
- Valero Lucas Terminal to Teppco Terminal Products Pipeline
- Valero Port Arthur Refinery to Premcor Pipeline's Lucas Terminal Products Pipeline
- Valero Port Arthur Refinery to Port Arthur Products System Terminal Products Pipeline
- Port Arthur Products System Terminal to Colonial and Explorer Products Pipeline
- Memphis Airport Jet Line
- East Chicago Pipeline
- Hammond Pipeline
- Shorthorn Products Pipeline
- Fannett 4" LPG Pipeline
- Fannett 6" LPG Pipeline
- Fannett 8" LPG Pipeline
- Amdel Crude Pipeline
- Hammond Terminal
- Collierville Terminal
- Fannett Terminal
- Lucas Terminal
- El Vista Tankage
- Port Arthur Products System (PAPS) Joint Interest
- St. James Tankage

The Premcor Refining Group Inc.

- Delaware City Truck Rack
- Memphis Truck Rack
- Riverside Terminal

3500 Sunrise Highway, Suite T103 • Great River, New York 11739
631-224 9141 (24 hours) • Fax 631-224 9082

NATIONAL RESPONSE CORPORATION

- Riverside Dock
- West Memphis Terminal
- Alsip Terminal
- Hartford Terminal
- Memphis Refinery
- Delaware City Refinery
- Port Arthur Refinery

The Shamrock Pipe Line Corporation

- Texas Gathering System
- Perryton Station
- Waka Station
- Coble Truckhaul
- Farnsworth Truckhaul
- Hitchland Truckhaul
- Hooker Truckhaul
- Clawson Truckhaul
- Merten #1 Truckhaul
- Merten #2 Truckhaul
- Miles Truckhaul
- Piper #1 Truckhaul
- Piper #2 Truckhaul
- Tubbs Truckhaul

Sigmor Corporation

- Refugio Pipeline
- Sigmor Natural Gas Pipeline

Valero Marketing and Supply Company

- Corpus Christi Asphalt Blending Plant
- Houston Asphalt Blending Plant
- Louisiana (St. James) Asphalt Blending Plant

Valero Refining Company – Oklahoma

- Oklahoma-Texas Ardmore Gas Pipeline
- Ardmore Refinery

Valero Terminaling and Distribution Company (f/n/a, Emerald Pipe Line Corporation)

- Turpin Refined Products Pipeline

NATIONAL RESPONSE CORPORATION

Valero Refining-Texas, L.P.
- Bill Greehey Refinery East & West
- Houston Refinery
- Texas City Refinery

Diamond Shamrock Refining Company, L.P.
- Three Rivers Refinery
- McKee Refinery

Ultramar Inc.
- Wilmington Refinery

Valero Refining Company – California
- Benicia Refinery
- Benicia Asphalt Plant
- Wilmington Asphalt Plant

Valero Refining Company - Louisiana
- Krotz Springs

Valero Refining Company - New Orleans, L.L.C.
- St. Charles Refinery

Valero Refining Company - New Jersey
- Paulsboro

Lima Refining Company
- Lima

Port Arthur Coker Company LP

Valero Refining - Aruba N.V.
- Aruba Refinery

Valero Coker Company - Aruba N.V.

Ultramar Ltée/Ultramar Ltd.
- Jean Gaullin Refinery

3500 Sunrise Highway, Suite T103 • Great River, New York 11739
631-224 9141 (24 hours) • Fax 631-224 9082

NATIONAL RESPONSE CORPORATION

Term: 5 years from the effective date of the Agreement, unless earlier terminated in accordance with the provisions of this Agreement.

Client:

Diamond Shamrock Refining and Marketing Company

- McKee-Stewart Pipeline System
- McKee-ConCarb Pipeline
- Turpin Terminal

Michigan Reutilization, LLC

- Arkansas City Asphalt Terminal

The Premcor Pipeline Co.

- Delaware City Pipeline
- Collierville Crude Pipeline
- Sun to Lucas Crude Pipeline
- Lucas to Valero Port Arthur Refinery Crude Pipeline
- Valero Lucas Terminal to Teppco Terminal Products Pipeline
- Valero Port Arthur Refinery to Premcor Pipeline's Lucas Terminal Products Pipeline
- Valero Port Arthur Refinery to Port Arthur Products System Terminal Products Pipeline
- Port Arthur Products System Terminal to Colonial and Explorer Products Pipeline
- Memphis Airport Jet Line
- East Chicago Pipeline
- Hammond Pipeline
- Shorthorn Products Pipeline
- Fannett 4" LPG Pipeline
- Fannett 6" LPG Pipeline
- Fannett 8" LPG Pipeline
- Amdel Crude Pipeline
- Hammond Terminal
- Collierville Terminal
- Fannett Terminal
- Lucas Terminal
- El Vista Tankage
- Port Arthur Products System (PAPS) Joint Interest
- St. James Tankage

The Premcor Refining Group Inc.

- Delaware City Truck Rack
- Memphis Truck Rack
- Riverside Terminal
- Riverside Dock
- West Memphis Terminal
- Alsip Terminal
- Hartford Terminal
- Memphis Refinery
- Delaware City Refinery
- Port Arthur Refinery

The Shamrock Pipe Line Corporation

- Texas Gathering System
- Perryton Station
- Waka Station
- Coble Truckhaul
- Farnsworth Truckhaul
- Hitchland Truckhaul
- Hooker Truckhaul
- Clawson Truckhaul
- Merten #1 Truckhaul
- Merten #2 Truckhaul
- Miles Truckhaul
- Piper #1 Truckhaul
- Piper #2 Truckhaul
- Tubbs Truckhaul

Sigmor Corporation

- Refugio Pipeline
- Sigmor Natural Gas Pipeline

Valero Marketing and Supply Company

- Corpus Christi Asphalt Blending Plant
- Houston Asphalt Blending Plant
- Louisiana (St. James) Asphalt Blending Plant

Valero Refining Company – Oklahoma

- Oklahoma-Texas Ardmore Gas Pipeline
- Ardmore Refinery

3500 Sunrise Highway, Suite T103 • Great River, New York 11739
631-224 9141 (24 hours) • Fax 631-224 9082

Valero Terminaling and Distribution Company (f/n/a, Emerald Pipe Line Corporation)
- Turpin Refined Products Pipeline

Valero Refining-Texas, L.P.
- Bill Greehey Refinery East & West
- Houston Refinery
- Texas City Refinery

Diamond Shamrock Refining Company, L.P.
- Three Rivers Refinery
- McKee Refinery

Ultramar Inc.
- Wilmington Refinery

Valero Refining Company – California
- Benicia Refinery
- Benicia Asphalt Plant
- Wilmington Asphalt Plant

Valero Refining Company - Louisiana
- Krotz Springs

Valero Refining Company - New Orleans, L.L.C.
- St. Charles Refinery

Valero Refining Company - New Jersey
- Paulsboro

Lima Refining Company
- Lima

Port Arthur Coker Company LP

Valero Refining - Aruba N.V.
- Aruba Refinery

Valero Coker Company - Aruba N.V.

Ultramar Ltée/Ultramar Ltd.

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631-224 9141 (24 hours) • Fax 631-224 9082

- Jean Gaullin Refinery

Ethanol Production Facilities

- Valero Albert City Plant
  Albert City, IA
- Valero Charles City Plant
  Charles City, IA
- Valero Reynolds Plant
  Reynolds, IN
- Valero Hartley Plant
  Hartley, IA
- Valero Welcome Plant
  Welcome, MN
- Valero Albion Plant
  Albion, NE
- Valero Aurora Plant
  Aurora, SD
- Valero Fort Dodge Plant
  Fort Dodge, IA

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APPENDIX B

WORST CASE DISCHARGE ANALYSIS AND SCENARIO

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.

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

DOT/PHMSA Discharge Volume Calculation

- **Worst Case Discharge**
  The largest volume (Bbls) of the following:
  - *Pipeline's maximum release time (hrs), plus the maximum shutdown response time (hrs), multiplied by the maximum flow rate (bph), plus the largest line drainage volume after shutdown of the line section.*

  -- OR --

  - *Largest foreseeable discharge for the line section is based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective action or preventive action taken.*

  -- OR --

  - *Capacity of the single largest breakout tank or battery of tanks within a single secondary containment system, adjusted for the capacity or size of the secondary containment system.*

Scenario Types

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

- Piping rupture
- Piping leak, under pressure and not under pressure
- Explosion or fire
- Equipment failure (e.g. pumping system failure, relief valve failure, or other general equipment relevant to operational activities associated with Pipeline Facility transfers).

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

RESPONSE CAPABILITY SCENARIOS

MEMPHIS AREA WORST CASE DISCHARGE

(b) (7)(F) [redacted]

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

Breakout Tank Volume

A worst case discharge scenario involving breakout tankage uses the single largest volume tank or the Response Zone, adjusted for the size of the secondary containment system and other permittable reductions. Applicable adjustments for the largest tank at the Pipeline Facility including secondary containment include:

Spill Prevention Measures	Percent Reduction Allowed
Secondary containment capacity greater than 100% capacity of tank and designed according to NFPA 30.	50%
Tank built, rebuilt, and repaired according to API Std 620/650/653.	10%
Overfill protection Designed according to API RP 2350	5%
Testing/cathodic protection designed according to API Std 650/651/653.	5%
Maximum allowable credit or reduction	70%

(b) (7)(F) [redacted]

Historic Discharge

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

Pipeline Volume

The WCD scenario for a pipeline is calculated using the pipeline's maximum release time in hours, plus the maximum shutdown response time in hours, multiplied by the maximum flow rate expressed in barrels per hour (bph), plus the largest line drainage volume after shutdown of the line section. The crude oil pipeline from Collierville to Memphis Refinery is used with the following calculations:

(b) (7)(F) [redacted]

RESPONSE CAPABILITY SCENARIOS (Cont'd)

MEMPHIS AREA WORST CASE DISCHARGE

1. Maximum release time is based on the capabilities of the remote operated systems.

2. The maximum shutdown time is an estimate based on the capabilities of the remote operated systems.

3. The maximum pumping rate of the pipeline.

4. The largest line drainage volume for the pipeline system is based on a break in the Collierville Terminal to Memphis Refinery line. The calculation considers the location of

(b) (7)(F) [redacted]

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

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
- 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 Appendix A.
- Telephone references are provided in Figures 2.2 and 2.5.

APPENDIX C

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.

(b) (7)(F)

[redacted]

C.3 DISCHARGE PREVENTION SYSTEMS

The Facility's primary objective is to prevent the release of petroleum. The Facility will respond and continue response activities for any petroleum release until it can be positively determined that the release did not come from a Facility pipeline, pump station, tank farm or other facility.

The pipeline, pumping and storage systems are subject to extensive maintenance and inspection programs that meet or exceed all applicable regulations. The programs include:

1. External Corrosion Protection

   The Facility has a regularly monitored impressed current cathodic protection system consisting of; rectifiers, ground beds, sacrificial anodes, test stations, and trend monitoring. The program is coordinated with adjacent or nearby systems or utilities to address the possibility of interference. Underground piping at the pump stations and other facilities are similarly protected and monitored. Pipe to soil surveys are performed on a scheduled routine basis to locate possible areas of coating damage or inadequate cathodic protection.

   Buried piping at pump stations and tank farms as well as tankage are electrically inspected. Supplementary cathodic protection is installed based on the results of the survey and inspection.

   All tankage is inspected for cathodic protection on an annual basis and records are kept electronically in a Cathodic Protection Data Management System at Headquarters and paper copies of these inspections are kept at the at the respective facilities. All above grounded piping is protected from atmospheric corrosion with paint.

C.3 DISCHARGE PREVENTION SYSTEMS (Cont'd)

1. Internal Corrosion Protection

   All pipelines have corrosion coupons to monitor internal corrosion. These coupons are inspected twice every year.

2. Safety Inspection and Maintenance

   The Facility technicians conduct regular inspections, tests, and recalibration of all instruments and devices to ensure their continued protection of the pipeline system. Shutdown and relief devices and their circuitry, as well as the data routes are routinely exercised to confirm proper operation. Relief devices are deadweight tested and recertified in accordance with a predetermined frequency. All sectionalization and block valves are routinely exercised for proper closure, and ease of operation. Visual and instrument examinations of flanges, mechanical joints and seals, packages and other potential failure points are routinely conducted.

3. Damage Prevention

   Many pipeline leaks occur as a result of physical damage to the buried pipe by outside construction parties. The Facility takes several measures to prevent such damage. The Facility flies patrol flights along the pipeline routes weekly. The pilots are instructed to observe evidence of any construction or other activities in the area of the pipeline. When such activities are reported, the Facility contacts the responsible parties, informs them of the presence and location of the underground line, and installs warning stakes to mark the line. The Facility also determines when the excavation will be made along or across the pipeline, and arranges for a representative to be present. The Facility also maintains membership and provides details of line locations to the Texas Excavation Safety System (TESS) service. This organization provides a toll free telephone number to provide contractors and other interested parties with buried cable, piping and utility location and contact information. The Facility maintains an extensive pipeline marking system along the pipeline right of way. The marker signs carry the name of the company, a contact telephone number.

APPENDIX D

TRAINING AND DRILLS

D.1 RESPONSE TEAM TRAINING

Collierville Terminal Personnel receive response team training and will respond to an emergency in their assigned position in the Local Response Team or Tactical Response Team (LRT/TRT). All personnel responding as part of the LRT/TRT must be trained in the subject area of their specific area of response, as well as be trained to the required knowledge/skill level as required by their assigned position in the LRT/TRT. All training must comply with the appropriate regulations and standards that govern each area of training required by members of the LRT/TRT to be able to perform their assign task during an emergency response. These include:

Safety must be the first priority of every member of the LRT/TRT. While the boundaries of safety may be stretched through the use of technology and training, there is always a balance between "risk" versus "benefits"; therefore, members of the LRT/TRT are NEVER to respond or to extend themselves beyond their training and/or their Personal Protective Equipment! All members will be trained for their particular assigned position before they will be allowed to fill the position. All members of the LRT/TRT will always work/respond in a Hot Zone and/or Warm Zone with a partner; LRT/TRT members are NEVER to work/respond in a Hot Zone and/or Warm Zone alone.

All members of the LRT/TRT will adhere to the Company's Safe-Work Polices and Procedures; they will also comply with the policies and procedures in the operational programs for the Local Response Team or Tactical Response Team.

Facility Response Plan Review

Qualified Individual personnel are provided general information regarding the background and requirements of OPA 90 and the contents/purpose of the Pipeline Facility's response plan. The review covers how the Plan is organized, what information it contains, and how it should be used. QI/AQI responsibilities emphasize notification and reporting procedures. The review is one time upon assignment to the position with annual refresher during Tabletop Exercise.

All response team members (QI, AQI response team) should review the appropriate parts of the Oil Spill Response Plan whenever their job position or responsibilities change under the Plan. A copy of this Plan will be available at all times to team members.

HAZWOPER (29 CFR 1910.120)

OSHA HAZWOPER training requirements are shown in the table below.

OSHA HAZWOPER TRAINING REQUIREMENTS		
Responder Classification	**Required Training Hours**	**Refresher**
29CFR 1910.120(q) Emergency Response		
First Responder – Employee Awareness Level	2-4 hrs demonstration of competency	Same
First Responder - Operations Level	8 hrs demonstration of competency	Same
Hazardous Materials - Technician Level	24 hrs.	8 hrs
Incident Commander	24 hrs plus competency	8 hrs

D.1 RESPONSE TEAM TRAINING (Cont'd)

HAZWOPER (29 CFR 1910.120) (Cont'd)

All personnel responding to an incident must satisfy the applicable HAZWOPER training requirements of 29 CFR 1910.120. Personnel are trained to the level of HAZWOPER necessary to perform their emergency response duties. Team members are required under state and federal regulations to have appropriate up-to-date HAZWOPER training necessary to function in their assigned positions. Refresher training or a demonstration of competency is required annually to maintain HAZWOPER qualifications.

First Responder/Operations: Personnel involved in the day-to-day operations of the pipeline receive continual instruction and experience in the proper handling and potential hazards associated with the materials that could be spilled in their area. Personnel involved in protection and containment operations which does not involve contact with the spill (i.e., booming operations prior to arrival of the oil) must have at least 8 hours of HAZWOPER training or sufficient experience to demonstrate competency in their spill response duties.

Incident Commander (Qualified Individual): IC is trained to assume control of an incident. Training includes the Company's incident command system, how to implement the Oil Spill Response Plan, the associated risks of employees working in chemical protective clothing, decontamination procedures, how to implement the local emergency response plan, and knowledge of the State Emergency Response Plan and the Federal Regional Response Team.

Other Response Support

Personnel from other aspects of the Response Team (e.g., Hazmat, fire brigade, medical, etc.) can be made available depending on the spill event.

Other personnel whose skills are needed temporarily to perform immediate emergency support work (such as dump truck drivers and crane operators) are not required to meet the training requirements discussed above. However, these personnel must be briefed on the potential hazards and the duties to be performed at the site before participating in response operations. They must also receive instruction in the use of any safety and personal protective equipment needed and on all other appropriate safety and health precautions.

Company and Other Specialist Support

Experts would provide technical advice or guidance during response to a spill incident. Examples of such specialists might include chemists, biologists, industrial hygienists, physicians, or others with skills useful during a spill response operation. Such persons must receive appropriate training or demonstrate competency in their specialty. There are no specific requirements on training content or hours of training for these persons. However, the training must be sufficient for the individuals to maintain competency in their specific area of expertise. Training and demonstration of competency for skilled support personnel and specialists should be documented.

D.1 RESPONSE TEAM TRAINING (Cont'd)

Incident Command System

Assigned IC team members will receive ICS training and may also receive supplemental training in other related general topics.

Additional Training

The QI/AQI Response Team members may receive additional training. Other annual courses pertinent to furthering the practical understanding of the OPA '90 Plan include SPCC and RCRA training. Additional training may be accomplished by attending seminars, training classes, cooperative training classes, outside classes, and various response schools. Timing of this additional training will vary based on availability of classes. Additional training is not required for team members to perform their spill team job functions.

Contractor Training

The Company also recognizes that contract personnel must also have sufficient training in responding to emergency situations in accordance with HAZWOPER training requirements. The Company communicates this training need to its key contractors during contract negotiations and often specifically spells out this requirement in its contracts. The Company also tends to use well-known spill response contractors whose reputation and experience levels help ensure personnel who respond will be trained to appropriate levels. If contractors sub-contract to labor pools, documentation as to the training of casual laborers will be required.

Training Qualifications

As no formalized method of certifying training instructors has been provided by OSHA, the Company ensures the competency of its instructors and training organizations by selecting trainers and/or organizations with professional reputations and extensive hands-on and classroom experience in their subject matter. 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.

Training Records and Maintenance

Training records for team members will be maintained at the Collierville Terminal according to Federal, State, and Local government requirements. Records must be maintained as long as the individual is assigned duties under this Response Plan.

D.2 RESPONSE TEAM EXERCISES

LRT/TRT/IMT 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 and unannounced 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 PREP Guidelines for full details).

TRIENNIAL CYCLE		
Total Number	**Frequency**	**Exercise Type/Description**
12	Quarterly	QI Notification Exercise**
6	Semi-Annual (Annually-DOT)	Equipment Deployment Exercise *(Facility-owned equipment)*
3	Annual	Response Team Tabletop Exercise
3	Annual	Equipment Deployment Exercise *(facilities with OSRO-owned equipment)*
3	Annual	Unannounced Exercise *(Emergency procedures, tabletop, or equipment deployment, not a separate exercise)* Actual response can be considered as an unannounced exercise. ** For facilities without equipment to deploy, an unannounced exercise could be accomplished during the QI Notification by randomly asking the QI what he/she would initiate in response to a particular scenario and then document the scenario and response.
NOTE: All Response Plan components must be exercised at least once in the Cycle.		

Quarterly QI Notification Exercise

- **Scope:** Exercise communication between Pipeline Facility personnel and the QI(s) and/or AQI(s). At least once each year, one of the notification exercises should be conducted during non-business hours.
- **Objective:** Contact must be made with a QI or AQI, 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.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

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

- **Scope:** Deploy and operate Pipeline Facility response equipment identified in the Response Plan. The equipment to be deployed must include the following, at a minimum:

  - 1,000 feet of representative type of boom;
  - one of each type of skimming system; or
  - the equipment necessary to respond to the Pipeline Facility's worst case discharge.

- **Objective:** Demonstrate personnel's ability to deploy and operate response equipment. Ensure that the response equipment is in proper working order.

- **General:** The Pipeline Facility may take credit for actual equipment deployment to a spill, or for training sessions, as long as the activities are properly documented.

***Annual Equipment Deployment Exercise* (OSRO-owned equipment)**

- **Review:** The Pipeline Facility should verify that the OSRO(s) has completed the equipment deployment exercise requirements and has maintained the necessary documentation. The OSRO may deploy equipment at any location, so long as it occurs within an operating environment similar to the Pipeline Facility's.

- **Scope:** OSRO must deploy and operate response equipment identified in the Response Plan. The equipment to be deployed must include the following, at a minimum:

  - 1,000 feet of representative type of boom.
  - One of each type of skimming system.

- **Objective:** OSRO must demonstrate the ability of the personnel (OSRO) to deploy and operate response equipment (OSRO). Ensure that the response equipment (OSRO) is in proper working order.

Annual Response Team Tabletop Exercise

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

- **Objective:** Exercise the Response Team in a review of the following:

  - Knowledge of the Plan.
  - Proper notifications.
  - Communications system.
  - Ability to access an OSRO.
  - Coordination of internal spill response personnel.
  - Review of the transition from a local team to a regional team.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Annual Response Team Tabletop Exercise (Cont'd)

- 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:** The Pipeline Facility is required to participate in only one unannounced exercise every 36 months from the date of the last government-initiated unannounced exercise.

  - Date and time of expected exercise duration and location of Response Zone will be provided at least 10 working days prior to the exercise.
  - Pipeline owners will provide the scenario of the exercise.
  - The exercise will involve the worst case discharge for that Response Zone.

- **Objective:** Demonstrate adequate knowledge of the Response Plan and the ability to organize, communicate, coordinate and respond.

  - Demonstrate that the response is timely, conducted with an adequate amount of equipment for the scenario, and properly conducted.

- **General:** This exercise is only applicable to those Response Zones that are randomly chosen.

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 OPA '90." The response community includes the Federal, State, and Local government and industry. The area exercises are designed to exercise the government and industry interface for spill response.

- **General:** The goal is to ensure that all areas of the country are exercised triennially. All of the area exercises will be developed by an exercise design team. The exercise design team is comprised of representatives from the Federal, State, and Local government and industry. A lead Plan Holder would lead each area exercise. The lead Plan Holder is the organization (government or industry) that holds the primary Plan that is exercised in the area exercise. The lead Plan Holder would have the final word on designing the scope and scenario of the exercise.

D.2 RESPONSE TEAM EXERCISES (Cont'd)

Exercise Documentation

- All exercises should be documented and maintained at the Pipeline Facility; documentation should specify:
  - The type of exercise
  - Date and time of the exercise
  - A description of the exercise
  - The objectives met in the exercise
  - The components of the response plan exercised
  - Lessons learned.

- Exercise documentation should be kept on file for the required length of time depending on the regulating agency (five (5) years for the Office of Pipeline Safety).

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?
  - Was management response appropriate?
  - Was the Facility/Company notified promptly? If so, why, how, and who? If not, why not?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

Outline of Review (Cont'd)

- ***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 Facility/Company resources and was this promptly initiated?
  - What other corporate 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?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***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 of 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?

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***Command Structure** (Cont'd)*

  - 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?
  - Were government agencies adequately informed at all stages?
  - 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 Oceanographic Atmospheric Administration
    - Dept of Fish and Wildlife
    - State Parks

D.3 PURPOSE OF REVIEW AND EVALUATION (Cont'd)

- ***Government Relations (Cont'd)***

  - 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

EVACUATION PLAN

E.1 EMERGENCY EVACUATION PROCEDURES

Minimizing employee and public exposure to hazardous substances is the highest priority activity at a pipeline emergency site. Often this must be done by notifying and/or evacuating employees and nearby residents (or assisting local officials with this activity) and/or by halting or diverting traffic on roads and railroads from the emergency area.

This section is a general procedure for response to a vapor cloud or other hazardous vapor release situation and is intended for use in conjunction with the Site Safety & Health Plan, and other plans and procedures that are applicable to the work area.

In the event that a hazardous vapor situation is detected, evacuation of all people in the affected area may be the highest priority course of action depending on the circumstances. Large-scale evacuations may require the efforts of the entire Response Team and/or assistance from local emergency responders, again depending on site conditions. Phone numbers for local emergency responders are located in Figure 2.5.

E.1.A Isolation of Potential Emergency Site

For all potential emergency situations, isolation of the area affected by employees and the general public will always be an immediate priority. Since each emergency is different, the size of the area to be isolated and the method of isolation will vary on a case by case basis.

In general, fenced pipeline installations such as tank farms, delivery terminals and pump stations can be isolated by controlling traffic at the installation's main gate. For situations on the pipeline right-of-way, the Response Team must quickly determine the size of the area potentially affected and work closely with local responders to make every effort to control all access to the area by road, rail or footpath.

In general, a potential emergency situation will be most easily isolated through the prompt enlistment of help from local responders (police, fire, etc.) to help control an area other than a fenced pipeline facility. Section 2.0 contains listings of how to contact these personnel.

E.1.B Pipeline Facility Evacuations

It is often difficult to determine when the quantity of vapors present constitute a hazard severe enough to warrant shutdown of operations and maintenance and the evacuation of the work site or pipeline, even when hazardous atmosphere detectors are in use.

Employees must ultimately use their own judgment, based on the available information, in addition to previous experience and training, in making this decision. In all cases, these judgments should be conservative, i.e., they should err on the side of safety and caution.

<u>The protection of human life must always take precedence over the protection of physical property or equipment.</u>

E.1 EMERGENCY EVACUATION PROCEDURES (Cont'd)

E.1.C Remote System Locations; Right-of-Way Locations

- The Controller or appropriate supervisor responsible for the remote location or line section will immediately shut down the appropriate lines and isolate the location to the extent possible by closing the appropriate remotely controlled block valves.

- The Controller or appropriate supervisor will notify the QI to start the response to the event. Dependent on the situation, the QI will send the appropriate personnel to the affected location to investigate. If an event is reported from the right-of-way, the QI will contact the appropriate pipeline operator who will be responsible for closing manual line block valves.

- Personnel responding to the affected location should always make an initial assessment of the site at a safe distance from the likely source point of the release. If the source point cannot be isolated without entering a vapor cloud or other hazardous situation, the investigating personnel should stay out of the hazardous area. A call for immediate assistance should be made to the Controller and to the QI to begin notification of the appropriate members of the SMT, who are properly equipped to approach and isolate a release of this nature.

- The QI has responsibility for contacting the appropriate local officials for assistance in evacuating and isolating all persons from the affected area and controlling traffic and spectators if needed.

E.2 EVACUATIONS INVOLVING THE GENERAL PUBLIC

E.2.A Specific Procedure

- The Company's acting On-Scene Commander first assesses the incident and determines if it is necessary to evacuate the public from the immediate affected area; local officials should be included in this decision making, if time permits.

- Coordination of evacuation efforts is the responsibility of the On-Scene Commander, or the person assigned as the SMT's Liaison Officer.

- If the incident involves injured persons, personnel on-scene should call 911 and request medical assistance.

- Local authorities such as the police, highway patrol and fire departments should be pressed into service assisting an evacuation, with the Company's On-Scene Commander or Liaison Officer acting as direct liaison to these officials.

E.2 EVACUATIONS INVOLVING THE GENERAL PUBLIC (Cont'd)

E.2.A Specific Procedure (Cont'd)

- All nearby occupied dwellings should then be visited and the inhabitants informed of the dangers as soon as possible. Evacuation instructions to residents must insist that all open flames including pilot lights and gas burners be extinguished if possible.

- Conduct evacuation on foot if necessary.

- Warn all evacuees against activities such as smoking, operating motor vehicles, using spark-producing appliances, etc. The Company should attempt to render whatever assistance is necessary to the evacuees.

- Keep the QI and/or Safety Officer informed of any evacuation efforts so they may pass along the latest information regarding such actions to other support personnel.

- In the interest of safety, the media and other members of the general public may need to be utilized to quickly inform people in the immediate area of an ongoing evacuation effort.

- Members of the press should be advised that electronic equipment such as camera lights and flashes can be potential sources of ignition when explosive vapors are present.

E.2.B Traffic Control

If an incident occurs near a road or railroad, local traffic may need to be halted or diverted from the immediate area. The assistance of local authorities should be solicited to enforce any necessary detours of local traffic until the hazardous situation can be stabilized. Railroads should be notified so they can halt rail traffic.

E.2.C Notification of Public Officials

The Company must be prepared to coordinate the Company's response to emergencies with public officials as appropriate. The QI or other appointee will interface with public officials on the appropriate seniority levels who are concerned about an emergency response in progress. The QI will meet directly with onsite incident commanders from other agencies in order to best coordinate response efforts. The Liaison Officer will act as Company liaison with various local emergency responders during the incident.

APPENDIX F

DISPOSAL PLAN

DISPOSAL PLAN

All disposal operations will be carried out in full accordance with applicable laws and regulations. The Company has identified several potential disposal sites that may be utilized for disposal operations. Some of the possible disposal sites are listed in Figure F.1.

The Pipeline Facility intends to recover as much oil as the situation permits to reduce waste, and will use only responsible transporters and disposal facilities. The Pipeline Facility will recover, reuse, decontaminate, or dispose of materials, as appropriate, after a spill incident. Waste materials may include the following: Recovered product, contaminated soil, personal protective equipment, decontamination rinses, absorbents, spent chemicals, contaminated equipment, and materials including drums, tank parts, valves, and shovels.

Recovered product may be placed in the same tank or facility from which it came, or may be placed in empty tanks. The Pipeline Facility may also be able to use:

- Tanks out of service
- Barges
- Tanker trucks
- Skid tanks.

FIGURE F.1
HAZARDOUS WASTE DISPOSAL FACILITIES SUMMARY

Disposal Facility	Location	EPA ID Number
Clean Harbors Incinerator	Kimball, NE	NED981723513
Clean Harbors Landfill	Sarnia, Canada	MIR000035204
Rineco Fuel Blending	Benton, AR	ARD981057870
Clean Harbors	Greenbrier, TN	TND000645770
MFR	Hannibal, MO	MOD054018288

Material that is not recoverable, such as spent oil absorbents, soils, and contaminated equipment, will be evaluated for disposal options. Representative samples of potentially hazardous wastes will be sent to an independent testing lab for analyses. Disposal will be done in accordance with Federal, State, and Local regulations including the Resource Conservation and Recovery Act (RCRA). The Company will verify that OSROs comply with applicable solid waste regulations when disposing of wastes generated at the Pipeline Facility. Contaminated equipment and materials, including drums, tank parts, valves, shovels, and personal protective equipment will be decontaminated or disposed of as debris.

Debris that is non-hazardous can be landfilled as special waste at the BFI Landfill. The contact information for BFI is located in Figure 2.5.

APPENDIX G

SAMPLE MISCELLANEOUS FORMS

Forms and Exercise Documentation File Maintenance Procedures

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

QUALIFIED INDIVIDUAL (QI) NOTIFICATION EXERCISE-
INTERNAL EXERCISE DOCUMENTATION

Date of Exercise: _____ Quarter: [ ] 1st [ ] 2nd [ ] 3rd [ ] 4th Year: _____

Note: This exercise is intended to evaluate the control center's ability to quickly contact the designated QI (or an alternate) as necessary following a spill incident. The person conducting the exercise should attempt to contact the QI listed in the OPA '90 Facility Response Plan. Use the phone number or pager number for the QI listed in the Plan and establish contact with him. If the QI cannot be contacted within 15 minutes, then contact one of the alternate QIs listed in the Plan. Fill all the applicable blanks below to document the exercise.

Qualified Individual(s) contacted (check one):

[ ] Primary: Andy Szabo
[ ] Secondary: Sam Kimmel

Method of Contact (check one):

[ ] Telephone Number used: _____
[ ] Pager Number used: _____
[ ] Radio Channel used: _____

Time Exercise Began: _____ [ ] AM [ ] PM

QI Contacted: _____

Contact made at: _____ [ ] AM [ ] PM

Is the QI available for response? [ ] Yes [ ] No

QI Response Time to Refinery: _____

From Where? _____

Time Exercise Ended: _____ [ ] AM [ ] PM

_____

Signature of Person Conducting Exercise

INCIDENT MANAGEMENT TEAM TABLETOP EXERCISE- INTERNAL EXERCISE DOCUMENTATION

1. Date(s) performed: _____
2. Exercise or Actual Response: _____ If exercise, Announced/Unannounced: ___
3. Location of tabletop: _____
4. Time started: _____ Time completed: _____
5. Response plan scenario used (check one):
   _____ Average most probable discharge
   _____ Maximum most probable discharge
   _____ Worst case discharge
   Size of (simulated) spill _____ bbls/gals
6. Describe how the following objectives were exercised:
   a) Spill management team's knowledge of response plan: _____
   _____
   _____
   b) Proper notifications: _____
   _____
   _____
   c) Communications system: _____
   _____
   _____
   d) Spill management team's ability to access contracted oil spill removal organizations:
   _____
   _____
   e) SMT's ability to coordinate spill response with OSC and outside agencies:
   _____
   _____
   f) SMT's ability to access site and resource information in the Area Contingency Plan:
   _____
   _____
7. Identify which core components of the response plan were exercised during this exercise:

__ Notifications	__ Site Safety
__ Staff mobilization	__ Disposal of recovered material and debris
__ Use of response mgmt system	__ Communications
__ Discharge control	__ Transportation
__ Discharge assessment	__ Personnel Support
__ Discharge containment	__ Equipment maintenance and support
__ Recovery of spilled material	__ Procurement
__ Protection of sensitive areas	__ Documentation

8. Lessons learned and persons responsible for follow up or corrective measures:
   _____
   _____
   _____

   _____
   Certifying Signature

EQUIPMENT DEPLOYMENT EXERCISE- INTERNAL EXERCISE DOCUMENTATION

Note: This form is to be used in documenting all equipment deployment exercises conducted utilizing refinery owned response equipment. All relevant information is to be recorded in the appropriate spaces. To document participants, attach sign-in sheet to the form.

Date of Exercise: _____ Exercise Site: _____

Exercise Type: [ ] Announced [ ] Unannounced (or actual response)

If unannounced, record response time: _____

Exercise Goals/Objectives:

_____

_____

_____

_____

Exercise Evaluation:

_____

_____

_____

_____

List of All Equipment Deployed:

_____

_____

_____

_____

Was equipment in working condition?	Y / N	Did equipment function properly?	Y / N
Was equipment stored properly?	Y / N	Is equipment in good condition?	Y / N
Was equipment cleaned after use?	Y / N	Was equipment returned to service?	Y / N

Comments:

_____

_____

_____

_____

Issues to be Addressed:

_____

_____

_____

_____

_____

Signature

PERSONNEL RESPONSE TRAINING LOG

Date: _____ Subject: _____
Description: _____ Instructor: _____
Credit Hours: _____

Personnel	Signature

OPA '90 PREP Required Exercise Summary for 200___

Internal Exercises:

1. QI notification exercise - quarterly

First quarter date/time completed: _____ Second quarter date/time completed: _____
Third quarter date/time completed: _____ Fourth quarter date/time completed: _____

2. Spill Management Team tabletop exercise - annually

Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____

3. Emergency Procedures exercise - annually

Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____

4. Equipment Deployment exercise - twice annually

Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____
OSRO or facility equipment: _____

Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____
OSRO or facility equipment: _____

Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____
OSRO or facility equipment: _____

5. Unannounced internal exercise - annually (may be # 2, 3, or 4, above)

Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____

External (Government Initiated) Exercises:
Date/time completed: _____
Exercise or Actual Response: _____ If exercise, Announced/Unannounced: _____

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

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

ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date _____

No. _____
(DOT Use Only)

INSTRUCTIONS

Important: *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the Office Of Pipeline Safety Web Page at* ***http://ops.dot.gov****.*

PART A – GENERAL REPORT INFORMATION

Check: ☐ **Original Report** ☐ **Supplemental Report** ☐ **Final Report**

1. a. Operator's OPS 5-digit Identification Number (if known) /___/___/___/___/___/
   b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if known) /___/___/___/___/___/
   c. Name of Operator _____
   d. Operator street address _____
   e. Operator address _____
   City, County, State and Zip Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   /___/___/___/___/ hr. /___/___/ month /___/___/ day /___/___/ year

3. Location of accident
   (If offshore, do not complete a through d. See Part C.1)
   a. Latitude: _____ Longitude: _____
   (if not available, see instructions for how to provide specific location)
   b. _____
   City, and County or Parish
   c. _____
   State and Zip Code
   d. Mile post/valve station O or survey station no. O
   (whichever gives more accurate location)
   _____

4. Telephone report
   /___/___/___/___/___/___/___/ NRC Report Number /___/___/ month /___/___/ day /___/___/ year

5. Losses *(Estimated)*

Public/Community Losses reimbursed by operator:

Public/private property damage	$_____
Cost of emergency response phase	$_____
Cost of environmental remediation	$_____
Other Costs	$_____
(describe) _____	

Operator Losses:

Value of product lost	$_____
Value of operator property damage	$_____
Other Costs	$_____
(describe) _____	
Total Costs	$_____

6. Commodity Spilled O Yes O No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled _____

b. Classification of commodity spilled:
- O HVLs /other flammable or toxic fluid which is a gas at ambient conditions
- O CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditions
- O Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- O Crude oil

a. Estimated amount of commodity involved :
- O **Barrels**
- O **Gallons (check only if spill is less than one barrel)**

Amounts:
Spilled : _____
Recovered: _____

CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barrels) : ***(For large spills [5 barrels or greater] see Part H)***

O **Corrosion** O **Natural Forces** O **Excavation Damage** O **Other Outside Force Damage**
O **Material and/or Weld Failures** O **Equipment** O **Incorrect Operation** O **Other**

PART B – PREPARER AND AUTHORIZED SIGNATURE

_____ (type or print) Preparer's Name and Title
_____ Area Code and Telephone Number

_____ Preparer's E-mail Address
_____ Area Code and Facsimile Number

_____ Authorized Signature (type or print) Name and Title _____ Date _____ Area Code and Telephone Number

PART C – ORIGIN OF THE ACCIDENT (Check all that apply)

1. Additional location information
   a. Line segment name or ID _____
   b. Accident on Federal land other than Outer Continental Shelf O Yes O No
   c. Is pipeline interstate? O Yes O No

Offshore: O Yes O No *(completed if offshore)*
d. Area _____ Block # _____
State / / / or Outer Continental Shelf ☐

2. Location of system involved (*check all that apply*)
   ☐ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA_____

3. Part of system involved in accident
   O Above Ground Storage Tank
   O Cavern or other below ground storage facility
   O Pump/meter station; terminal/tank farm piping and equipment, including sumps
   O Other *Specify:* _____
   O Onshore **pipeline**, including valve sites
   O Offshore **pipeline**, including platforms

*If failure occurred on **Pipeline**, complete items a - g:*

4. Failure occurred on
   O Body of Pipe O Pipe Seam O Scraper Trap
   O Pump O Sump O Joint
   O Component O Valve O Metering Facility
   O Repair Sleeve O Welded Fitting O Bolted Fitting
   O Girth Weld
   Other *(specify)* _____

Year the component that failed was installed: / / / / /
5. Maximum operating pressure *(MOP)*
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an over pressurization occur relating to he accident? OYes O No

a. Type of leak or rupture
   OLeak: O Pinhole O Connection Failure *(complete sec. H5)*
   O Puncture, diameter *(inches)* _____
   ORupture: O Circumferential – Separa ion
   O Longitudinal – Tear/Crack, length *(inches)* _____
   Propaga ion Length, total, both sides *(feet)* _____
   ON/A
   OOther _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? OYes O No
f. Had here been an in-line inspec ion device run at the point of failure? O Yes O No O Don't Know
   O Not Possible due to physical constraints in the system
g. If *Yes*, type of device run (*check all that apply*)
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D – MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / / / / / in.
2. Wall thickness / / / / / in.
3. Specification _____ SMYS / / / / / / /
4. Seam type _____
5. Valve type _____
6. Manufactured by _____ in year / / / / /

PART E – ENVIRONMENT

1. Area of accident
   O Under pavement O In open ditch
   O Underground O Above ground
   O Inside/under building O Under water
   O Other _____
2. Depth of cover: _____ inches

PART F – CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:		
Contractor employees working for operator:		
General public:		
Totals:		

b. Was pipeline/segment shutdown due to leak? OYes O No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited OYes O No d. Explosion OYes O No
e. ☐ Evacuation *(general public only)* / / / / / people
Reason for Evacuation:
O Precautionary by company
O Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ / / hr. / / / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic O Yes O No; Birds O Yes O No; Terrestrial O Yes O No
b. Soil Contamination O Yes O No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: O Yes O No
d. Anticipated remediation O Yes O No
If Yes, check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: O Yes O No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater O No O Yes
Surface O No O Yes
Groundwater O No O Yes
Drinking water O No O Yes *(If Yes, check below)*
O Private well O Public water intake

PART G – LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes O No

2. Was the release initially detected by? (check one):
O CPM/SCADA-based system with leak detection
O Static shut-in test or other pressure or leak test
O Local operating personnel, procedures or equipment
O Remote operating personnel, including controllers
O Air patrol or ground surveillance
O A third party O Other (specify) _____

3. Estimated leak duration days ____ hours ____

PART H – APPARENT CAUSE

Important: *There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. See the instructions for guidance.*

H1 – CORROSION

1. ☐ External Corrosion

2. ☐ Internal Corrosion

(Complete items a – e where applicable.)

a. Pipe Coating
O Bare
O Coated

b. Visual Examination
O Localized Pitting
O General Corrosion
O Other _____

c. Cause of Corrosion
O Galvanic O Atmospheric
O Stray Current O Microbiological
O Cathodic Protection Disrupted
O Stress Corrosion Cracking
O Selective Seam Corrosion
O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: /___/___/___/___/

e. Was pipe previously damaged in the area of corrosion?
O No O Yes ⇒ Estimated time prior to accident: /___/___/ *years* /___/___/ *months* *Unknown* ☐

H2 – NATURAL FORCES

3. ☐ Earth Movement ⇒ O Earthquake O Subsidence O Landslide O Other _____
4. ☐ Lightning
5. ☐ Heavy Rains/Floods ⇒ O Washouts O Flotation O Mudslide O Scouring O Other _____
6. ☐ Temperature ⇒ O Thermal stress O Frost heave O Frozen components O Other _____
7. ☐ High Winds

H3 – EXCAVATION DAMAGE

8. ☐ Operator Excavation Damage (including their contractors/Not Third Party)
9. ☐ Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Railroad
O Other liquid or gas transmission pipeline operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc…)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/___/___/

e. Did operator get prior notification of excavation activity?
O Yes; Date received: /___/___/ mo. /___/___/ day /___/___/___/___/ yr. O No
Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes *(If Yes, check applicable items i - iv)*
i. Temporary markings: O Flags O Stakes O Paint
ii. Permanent markings: O
iii. Marks were (check one) : O Accurate O Not Accurate
iv. Were marks made within required time? O Yes O No

H4 – OTHER OUTSIDE FORCE DAMAGE

10. ☐ Fire/Explosion as primary cause of failure ⇒ Fire/Explosion cause: O Man made O Natural
11. ☐ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ☐ Rupture of Previously Damaged Pipe
13. ☐ Vandalism

H5 – MATERIAL AND/OR WELD FAILURES

Material

14. ☐ Body of Pipe ⇒ O Dent O Gouge O Bend O Arc Burn O Other _____
15. ☐ Component ⇒ O Valve O Fitting O Vessel O Extruded Outlet O Other _____
16. ☐ Joint ⇒ O Gasket O O-Ring O Threads O Other _____

Weld

17. ☐ Butt ⇒ O Pipe O Fabrication O Other _____
18. ☐ Fillet ⇒ O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____
19. ☐ Pipe Seam ⇒ O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

*Complete a-g if you indicate **any** cause in part H5.*

a. Type of failure:
O Construction Defect ⇒ O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, *complete d-g* O No

d. Date of test: /___/___/___/ yr. /___/___/ mo. /___/___/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /___/___/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 – EQUIPMENT

20. ☐ Malfunction of Control/Relief Equipment ⇒ O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure O Other _____
21. ☐ Threads Stripped, Broken Pipe Coupling ⇒ O Nipples O Valve Threads O Dresser Couplings O Other _____
22. ☐ Seal Failure ⇒ O Gasket O O-Ring O Seal/Pump Packing O Other _____

H7 – INCORRECT OPERATION

23. ☐ Incorrect Operation
a. Type: O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /___/___/___/ alcohol test /___/___/___/

H8 – OTHER

24. ☐ Miscellaneous, *describe:* _____
25. ☐ Unknown
O Investigation Complete O Still Under Investigation *(submit a supplemental report when investigation is complete)*

PART I – NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT *(Attach additional sheets as necessary)*

DEPARTMENT OF TRANSPORTATION
LIQUID PIPELINE ACCIDENT REPORT

Instructions: Submit in duplicate for each accident reportable under Code of Federal Regulations, Title 49, Part 195, Subpart B.

If the space provided for any question is not adequate, attach an additional sheet. File both copies of this report within 30 days after discovery of the accident with the Information Resources Manager (Room 2335), Office of Pipeline Safety, Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590. However, reports for intrastate pipelines subject to the jurisdiction of a State agency pursuant to certification under Section 205 of the Hazardous Liquid Pipelines Safety Act of 1979 may be submitted in duplicate to State agency if the regulations of that agency require submissions of these reports and provide for further transmittal of one copy within 10 days of receipt to the Information Resource Manager.

Please write or call the Information Resource Manager (202-366-4758) concerning questions about this report or these instructions, or to obtain copies of DOT Form 7000-1.

Each operator shall prepare each report of an accident of Form DOT 7000-1 or a facsimile as follows:

(1) General. Each applicable item must be marked or filled in fully and as accurately as information accessible to the operator at the time of filing the report will permit. More than one item may apply.

(2) Part A. Enter the complete corporate name of the operator. Enter the address of the operator's principal place of business, including zip code.

(3) Part B, Item 1. Enter the date the accident occurred or was discovered. If the accident was not discovered on the date it occurred, state this under Part K. Indicate whether the accident occurred on Federal Lands. For purpose of the report,"Federal lands" means all lands owned by the United States except lands in the National Park System, lands held in trust for an Indian or Indian tribe, and lands on the Outer Continental Shelf.

Item 2. Enter the time the accident occurred according to a 24 hour clock (e.g. 1945). If the time of occurrence is not known, enter the time the accident was discovered state this fact under Part K.

(4) Part E. Give the number of deaths and injuries known at the time of filing this report even if they were previously reported telephonically to the Department of Transportation. If none, state none.

(5) Part F. Indicate the total estimated property damage in the present day costs including the cost of the commodity not recovered, damage to other parties, and cost of clean up. If none, state none.

(6) Part G. **Item 1**. State the commonly used name of the commodity spilled such as #2 fuel oil, regular gasoline, propane, etc.

Item 2. Give the classification of the commodity spilled and if it is a petroleum product, indicate whether it is a highly volatile liquid (HVL) or non "HVL" means a hazardous liquid which will form a vapor cloud when released to the atmosphere and which has a vapor pressure exceeding 276Pa (40 psia) at 37.8º c (100º F). If the commodity spilled is not anhydrous ammonia, petroleum, or a petroleum product, it is not necessary to file this report.

(7) Part K. Give an account of the accident sufficiently complete and detailed to convey an understanding of the cause of the accident. Continue on an extra sheet of paper if more space is needed.

Cross Reference

PAGE

DOT/PHMSA 49 CFR PART 194
CROSS REFERENCE

§ 194.105	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	... determine the worst case discharge ... provide methodology, including calculations, used to arrive at the volume.	Fig 1.1, 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.	§ 5.0
(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, 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…	§ 6.8
(b)(2)	As a minimum, to be consistent with the applicable ACP the plan must:	-----
(b)(2)(i)	Address the removal of a worst case discharge and the mitigation or prevention of a substantial threat of a worst case discharge;	§ 3.0, App A
(b)(2)(ii)	Identify environmentally and economically sensitive areas;	§ 6.0
(b)(2)(iii)	Describe the responsibilities of the operator and 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.	§ 6.8
(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, App A, App C
(c)(1)(iv)	The name, address, and telephone number of the oil spill response organization, if appropriate,	Fig 2.2, App A
(c)(1)(v)	Response activities and response resources,	§ 6.0, App A
(c)(1)(vi)	Names and telephone numbers of Federal, state, and local agencies which the operator expects to have pollution control responsibilities or support,	Fig 2.5
(c)(1)(vii)	Training procedures,	App D

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

§ 194.107	BRIEF DESCRIPTION	LOCATION in PLAN
(c)(1)(viii)	Equipment testing,	App D
(c)(1)(ix)	Drill program – an operator will satisfy the requirement for a drill program by following the National Preparedness for Response Exercise Program (PREP) guidelines. An operator choosing not to follow PREP guidelines must have a drill program that is equivalent to PREP. The operator must describe the drill program in the response plan and OPS will determine if the program is equivalent to PREP.	App D
(c)(1)(x)	Plan review and update procedures;	§ 1.4, App D
(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.	Fig 1.1
(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
§ 194.113	**BRIEF DESCRIPTION**	**LOCATION in PLAN**
(a)	The information summary for the core plan, required by § 194.107, must include:	----
(a)(1)	The name and address of the operator.	Fig 1.1
(a)(2)	For each response zone which contains one or more line sections that meet the criteria for determining significant and substantial harm as described in § 194.103, a listing and description of the response zones, including county(s) and state(s).	Fig 1.1
(b)	The information summary for the response zone appendix, required in § 194.107, must include:	----
(b)(1)	The information summary for the core plan.	Fig 1.1
(b)(2)	The names or titles and 24-hour telephone numbers of the qualified individual(s) and at least one alternate qualified individual(s);	Fig 1.1
(b)(3)	The description of the response zone, including county(s) and state(s), for those zones in which a worst case discharge could cause substantial harm to the environment.	Fig 1.1
(b)(4)	A list of line sections for each pipeline contained in the response zone, identified by milepost or survey station number, or other operator designation.	Fig 1.1
(b)(5)	The basis for the operator's determination of significant and substantial harm.	Foreword
(b)(6)	The type of oil and volume of the worst case discharge.	Fig 1.1, App B

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

§ 194.115	BRIEF DESCRIPTION	LOCATION in PLAN
(a)	Each operator shall identify and ensure, by contract or other approved means, the resources necessary to remove, to the maximum extent practicable, a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.	App A
(b)	An operator shall identify in the response plan the response resources which are available to respond within the time specified, after discovery of a worst case discharge, or to mitigate the substantial threat of such a discharge.	App A
§ 194.117	**BRIEF DESCRIPTION**	**LOCATION in PLAN**
(a)	Each operator shall conduct training to ensure that:	-----
(a)(1)	All personnel know --	-----
(a)(1)(I)	Their responsibilities under the response plan	§ 4.0, App D
(a)(1)(ii)	The name and address of, and the procedure for contacting, the operator on a 24-hour basis	§ 2.0, Fig 2.1, App D
(a)(1)(iii)	The name of, and procedures for contacting, the qualified individual on a 24-hour basis	§ 2.0, Fig 1.1, Fig. 2.1, App D
(a)(2)	Reporting personnel know --	-----
(a)(2)(I)	The content of the information summary of the response plan.	Fig 1.1, App D
(a)(2)(ii)	The toll-free telephone number of the National Response Center	Fig 2.3, Fig 2.4, Fig. 2.5
(a)(2)(iii)	The notification process	§ 2.0, Fig. 2.4
(a)(3)	Personnel engaged in response activities know --	-----
(a)(3)(I)	The characteristics and hazards of the oil discharged	§ 3.0
a)(3)(ii)	The conditions that are likely to worsen emergencies, including the consequences of facility malfunctions or failures, and the appropriate corrective actions.	§ 3.0
(a)(3)(iii)	The steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage	§ 3.0, App D
(a)(3)(iv)	The proper firefighting procedures and use of equipment, fire suits, and breathing apparatus	§ 1.2, 3.0, App D
(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	-----
(b)(1)	Records for operator personnel must be maintained at the operator's headquarters	§ 4.1, App D
(b)(2)	Records for personnel engaged in response, other than operator personnel, shall be maintained as determined by the operator.	§ 4.1, App D
(b)(3)	Nothing in this section relieves an operator from the responsibility to ensure that all response personnel are trained to meet the OSHA standards for emergency response operations in 29 CFR 1910.120 ...	§ 4.1, App D

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

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

OSHA EMERGENCY ACTION PLANS (29 CFR 1910.38) and Employee Alarm Systems (29 CFR 1910.165) CROSS REFERENCE (Cont'd)

29 CFR	BRIEF DESCRIPTION	LOCATION in PLAN
1910.38	***Emergency action plan***	
(a)	Application	1.0
(b)	Written and Oral Emergency Plans	Entire Plan
(c)	Elements:	-----
(c)(1)	Procedures for reporting a fire or other emergency;	2.0
(c)(2)	Procedures for emergency evacuation including type of evacuation and exit route assignments;	3.8
(c)(3)	Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;	3.9
(c)(4)	Procedures to account for all employees after emergency evacuation has been completed.	3.8
(c)(5)	Procedures to be followed by employees performing rescue and medical duties;	3.6 & 3.7
(c)(6)	The name or job titles of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.	2.0
(d)	Alarm system	2.1
(e)	Training	App D
(f)	Review of Emergency Action Plan	1.4
1910.165	***Employee alarm systems:***	-----
(b)	General requirements	2.1
(b)(1)	Purpose of alarm system	2.1
(b)(4)	Preferred means of reporting emergencies	2.1
(d)	Maintenance and testing	App D, G

GLOSSARY OF TERMS/ACRONYMS

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 Ground (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 form 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 any other area 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 '90.

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 Means 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 lease 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 a 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 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.

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.

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.

Site Security and Control: Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.

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 U.S. - See Navigable Waters, page G-11.

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.

AC - Area Committee
AOR - Area of Review
AQI - Alternate Qualified Individual
BPD - Barrels Per Day
BOD - Biological Oxygen Demand
BOM - Bureau of Mines
CAER - Community Awareness and Emergency Response
CBP Customs and Border Patrol
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CHEMTREC - Chemical Transportation Emergency Center
COE - U. S. Army Corps of Engineers
CRZ - Contamination Reduction Zone
CWA - Clean Water Act (Federal - Public Law 100-4)
CWS - Community Water System
CZM - Coastal Zone Management
DECON - Decontamination
DRG - District Response Group
EBS - Emergency Broadcast System
EHS - Extremely Hazardous Substance
EMA - Emergency Management Agency
EMS - Emergency Medical Service
EOC - Emergency Operations Center
EPA - U. S. Environmental Protection Agency
EPCRA - The Emergency Planning and Community Right-to-Know Act of 1986 (Title III of SARA)
EQ - Environmental Quality
ERT - Environmental Response Team
ESA - Endangered Species Act
FAX - Facsimile Machine
FCC - Federal Communications Commission
FEMA - Federal Emergency Management Agency
FOSC - Federal On-Scene Coordinator
FR - Federal Register
GIS - Geographic Information System
GSA - General Services Administration
HAZWOPER - Hazardous Waste Operations and Emergency Response
HHS - Department of Health and Human Services
IBRRC - International Bird Rescue Research Center
LEPC - Local Emergency Planning Committee
LFL - Lower Flammable Limit
LOSC - Local On-Scene Coordinator
LRT - Local Response Team
MBL - Mobile
MER - Marine Emergency Response
MMS - Minerals Management Service
MMT - Marine Management Team
MSDS - Material Safety Data Sheet
MSO - Marine Safety Office
MSRC - Marine Spill Response Corporation
NCP - National Contingency Plan
NEPA - National Environmental Policy Act
NIOSH - National Institute for Occupational Safety and Health
NMFS - National Marine Fisheries Service
NOAA - National Oceanic and Atmospheric Administration (Department of Commerce)
NPDES - National Pollution Discharge Elimination System
NPS - National Park Service
NRC - National Response Center
NRDA - Natural Resource Damage Assessment
NRS National Response System
NRT - National Response Team
NSF - National Strike Force
NSFCC - National Strike Force Coordination Center
OPA - Oil Pollution Act
OPS - Office of Pipeline Safety (DOT)
OSC - On-Scene Coordinator
OSHA - Occupational Safety and Health Administration (USDL)
OSLTF - Oil Spill Liability Trust Fund
OSPRA - Oil Spill Prevention and Response Act
OSRO - Oil Spill Response Organization
PCB - Polychlorinated Biphenyls

PFD - Personal Flotation Device
PGR - Pager
PHMSA - Pipeline and Hazardous Material Safety Administration (replaced RSPA)
PIAT - Public Information Assist Team
POLREP - Pollution Report
PPE - Personal Protective Equipment
PPM - Parts Per Million
PSD - Prevention of Significant Deterioration
QI - Qualified Individual
RACT - Reasonably Achievable Control Technology
RCP - Regional Contingency Plan
RCRA - Resource Conservation and Recovery Act
RECON - Reconnaissance
REP - Radiological Emergency Preparedness
RERT - Radiological Emergency Response Team
RQ - Reportable Quantity
RRT - Regional Response Team
RSPA - Research and Special Programs Administration (DOT - OPS) (replaced by PHMSA)
SARA - Superfund Amendments and Reauthorization Act
SCBA - Self Contained Breathing Apparatus
SDWA - Safe Drinking Water Act
SERC - State Emergency Response Commission
SIC - State Implementation Plan
SMT - Spill Management Team
SONS - Spill of National Significance
SOP - Standard Operating Procedure
SPCC - Spill Prevention Control and Countermeasure
SSC - Scientific Support Coordinator (NOAA)
STEL - Short Term Exposure Limits
SWD - Salt Water Disposal
TSCA - Toxic Substances Control Act
TSDF - Treatment, Storage or Disposal Facility
UCS - Unified Command System
USACOE - U.S. Army Corps of Engineers
USCG - U.S. Coast Guard
USDW - Underground Source of Drinking Water
USFWS - U. S. Fish and Wildlife Services
USGS - U. S. Geological Survey
WCD - Worst Case Discharge

AGENCY CORRESPONDENCE

REGULATORY AGENCY CORRESPONDENCE AND OTHER AGENCY REQUIREMENTS