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

1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

The following Oil Spill Response Plan has been submitted to the Department of Transportation (DOT) Pipeline Hazardous Materials Safety Administration (PHMSA) in HyperText Markup Language (HTML) format, and has since been converted to Portable Document Format (PDF) form. Any hyperlink included in the PDF file is NOT functional, and materials referenced in the links have been attached as an addendum at the end of the document.


Enterprise Products Operating, L.P.
Enterprise Products Operating, L.P.
Rocky Mountain Zone
OPA-90 Facility Response Plan
Developed by:


Enterprise Products Operating, L.P., Rocky Mountain Zone
OPA-90 Facility Response Plan


Enterprise Products Operating, L.P.
Enterprise Products Operating, L.P.
Rocky Mountain Zone
OPA-90 Facility Response Plan
Developed By:

9720 Cypresswood Drive #340 • Houston, Texas 77070 USA • Tel: 281-955-9600 • Fax: 281-955-0369 • info@trpcorp.com • www.trpcorp.com

Enterprise Products Operating, L.P.

Rocky Mountain Zone

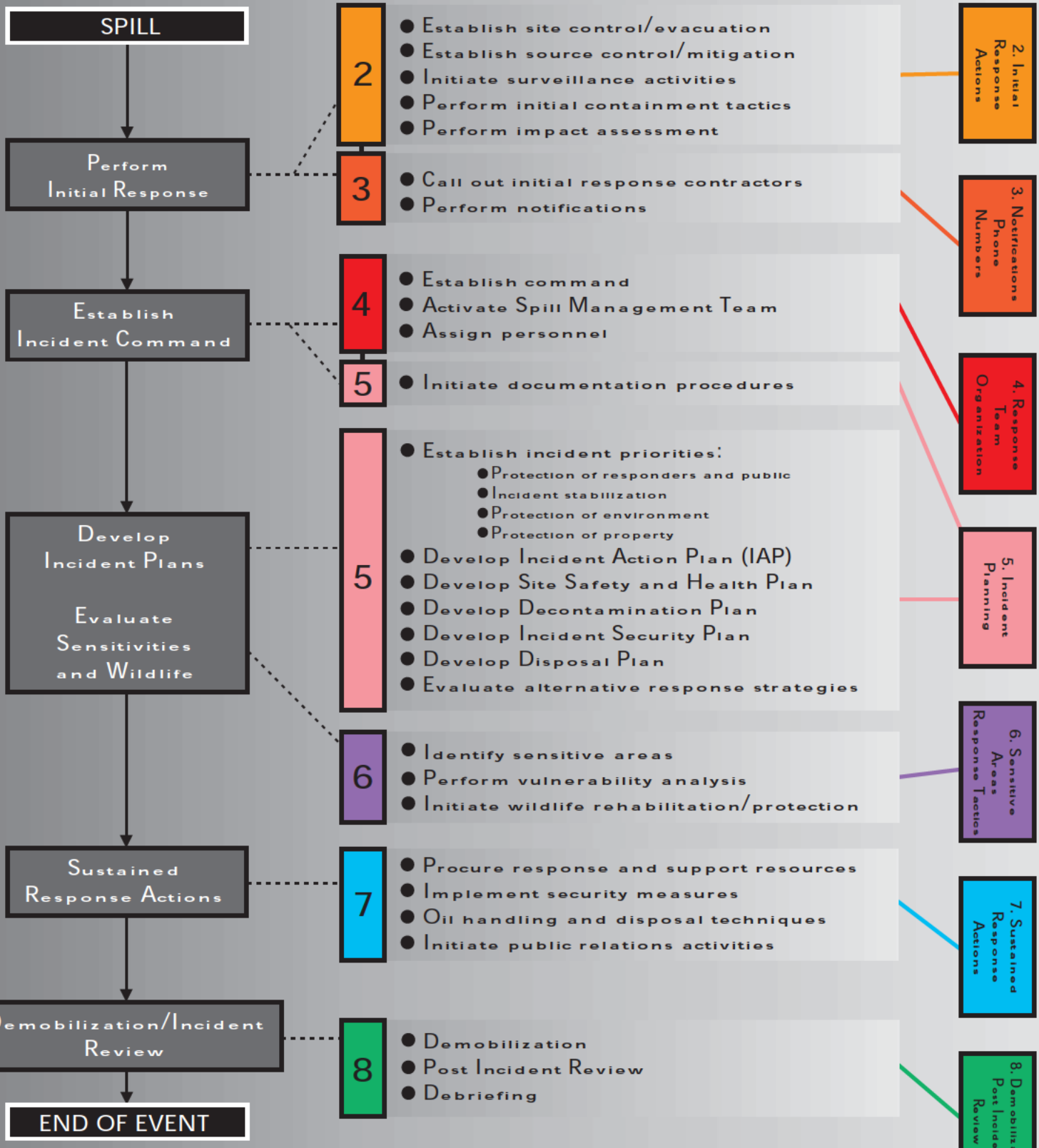
Oil Spill Response Plan
Terminals

Developed by:

TECHNICAL RESPONSE PLANNING
CORPORATION

9720 Cypresswood Drive #340 • Houston, Texas 77070 USA • Tel: 281-955-9600 • Fax: 281-955-0369 • info@trpcorp.com • www.trpcorp.com

Response Procedures Flow Chart



Enterprise\DOT_FRP\Graphics\Index.cdr

TABLE OF CONTENTS

SECTION 1 Last Revised: September 2011

INTRODUCTION

FIGURE 1-1 - RECORD OF CHANGES

Changes to this Plan will be documented through the EPOLP change request form, filed at the Area Office, and submitted to the Senior Compliance Administrator for entry into the system. Plan review and modifications will be initiated and coordinated by the Environmental, Health, Safety, and Training Department (EHS&T) in conjunction with the Supervisor/Area Manager.

CHANGE NUMBER	DATE OF CHANGE	DESCRIPTION OF CHANGE	PAGE NUMBER
1	3/8/2004	DOT temporary approval letter inserted into Section 1.5	Section 1 - Page 15
2	10/28/2004	Added WCD to Figure 1-3, Updated Section 1.2, Revised Figure 2-1, Removed Figure 2-2, Revised Figure 3.1-1, Revised Figure 3.1-2, Revised Figure 4.2, Updated Section 4.5, Section 4.6 added Finance Section Chief	Section 1 - Pages 5 and 9, Section 2 - all pages, Section 3 - Pages 3 and 4, Section 4 - Pages 3, 5, 6, and 15, Section 5 - Page 8
3	1/10/2005	Updated Section 1.1, Added Alternate Response Strategies to Section 6, Added Threatened and Endangered Species habitats to Section 6	TOC - Pages 1-3, Section 1 - Page 8, Section 6 - Page 1 and Pages 12 through end of Section
4	2/25/2005	DOT five year approval letter inserted into Section 1.5	Section 1 - Page 16
5	3/31/2005	update of phone numbers/replacement of technician	Update of Farmington address; update of phone numbers; replacement of J. Johnson with B. Bailey
6	8/25/2005	Updated Section 1.2, Updated Figure 2-1, Updated Section 4.4, Revised Figure 3.1-4, Updated Figure 7.1-1,Updated Appendix B	Section 1 - Pages 2 and 9, Section 2 - Page 2, Section 4 - Page 3, Section 3 - Page 18, Section 7 - Page 2, Appendix B - Pages 2-4
7	1/18/2006	Updated Viva Env. 24 hour phone number, Added contractors equipment maintenance procedure	Section 3 - Page 18, Section 7 - Page 3
8	2/14/2006	Updated Record of Changes in Figure 1-1, Changed RSPA references to PHMSA in Sections 1.1, 1.2, 3 (TOC), 3.1, Appendices C.4, C.5, D, and E.1; Updated plan holder addresses in Figure 1-2, Revised Local Agencies notifications in Figure 3.1-4	Section 1 - Pages 2, 3, 8 and 9, Section 3 - Page 1, 2, 13 , 15 and 16, Appendix C - Pages 8 and 10, Appendix D - Pages 1-5, Appendix E - Page 3
9	8/22/2011	1 - PHMSA | 1 - Introduction | 1.5 Agency Submittal/Approval Letters	
10	8/23/2011	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and	

		Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | Company Personnel	
11	8/23/2011	1 - PHMSA | A - Training / Exercises | A.2 Training Program | Figure A.2-3 - Personnel Response Training Log	
12	8/23/2011	1 - PHMSA | 1 - Introduction | Figure 1-3 - Information Summary	
13	8/24/2011	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | External Notifications	
14	8/24/2011	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | External Notifications	
15	8/24/2011	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | External Notifications	
16	9/2/2011	1 - PHMSA | 1 - Introduction | Figure 1-3 - Information Summary | Information Summary	
17	9/7/2011	1 - PHMSA | 1 - Introduction | 1.5 Agency Submittal/Approval Letters	
18	9/22/2011	1 - PHMSA | 1 - Introduction | Figure 1-2 - Distribution List	
19	7/15/2014	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-3 - DOT/PHMSA Accident Report Form	
20	7/17/2014	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | USCG Classified OSRO's / Non-Classified OSRO's	
21	7/17/2014	1 - PHMSA | 7 - Sustained Response Actions | 7.1 Response Resources | Figure 7.1-1 - Regional Company and Response Contractor’s Equipment List/Response Time	
22	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | B.1.1 OSRO Classification	

23	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | Figure B.1-1 - Evidence of Contracts	
24	7/17/2014	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | USCG Classified OSRO's / Non-Classified OSRO's	
25	7/17/2014	1 - PHMSA | 7 - Sustained Response Actions | 7.1 Response Resources | Figure 7.1-1 - Regional Company and Response Contractor’s Equipment List/Response Time	
26	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | B.1.1 OSRO Classification	
27	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | Figure B.1-1 - Evidence of Contracts	
28	7/17/2014	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | USCG Classified OSRO's / Non-Classified OSRO's	
29	7/17/2014	1 - PHMSA | 7 - Sustained Response Actions | 7.1 Response Resources | Figure 7.1-1 - Regional Company and Response Contractor’s Equipment List/Response Time	
30	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | B.1.1 OSRO Classification	
31	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | Figure B.1-1 - Evidence of Contracts	
32	7/17/2014	1 - PHMSA | 3 - Notifications / Telephone Numbers | 3.1 Emergency Information and Notification Procedures | Figure 3.1-4 - Notifications and Telephone Numbers | USCG Classified OSRO's / Non-Classified OSRO's	
33	7/17/2014	1 - PHMSA | 7 - Sustained Response Actions | 7.1 Response Resources | Figure 7.1-1 - Regional Company and Response	

		Contractor's Equipment List/Response Time	
34	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | B.1.1 OSRO Classification	
35	7/17/2014	1 - PHMSA | B - Contractor Response Equipment | B.1 Cooperatives and Contractors | Figure B.1-1 - Evidence of Contracts	

FIGURE 1-2 - DISTRIBUTION LIST

PLAN HOLDER	ADDRESS	NUMBER OF PAPER COPIES	**NUMBER OF ELECTRONIC COPIES**
Area Manager - Rocky Mountain Region	P.O. Box 370 Hobbs, NM 88240	0	1
Area Supervisor - Four Corners Area	P.O. Box 3255, 3621 East Main Street Farmington, NM 87499	0	1
Pipeline Supervisor - Hobbs Area	P.O. Box 370 Hobbs, NM 88240	0	1
Maintenance Coordinator - Hobbs Area	P.O. Box 370 Hobbs, NM 88240	0	1
Maintenance Coordinator - Four Corners Area	P.O. Box 3255, 3621 East Main Street Farmington, NM 87499	0	1
Maintenance Specialist - Four Corners Area	P.O. Box 3255, 3621 East Main Street Farmington, NM 87499	0	1
Field Environmental Scientists/Specialists	Various Locations ,	0	5
Field Safety Coordinators	Various Locations ,	0	4
USDOT - OPS	1200 New Jersey Avenue, S.E. Washington, DC 20590	0	2

FIGURE 1-3 - Rocky Mountain Zone INFORMATION SUMMARY

Owner:	Mid-America Pipeline Company, LLC 1100 Louisiana Street Houston, TX 77002
Operator:	Enterprise Products Operating, LLC

	1100 Louisiana Street Houston, TX 77002	
Zone Name:	Rocky Mountain Zone	
Facility Mailing Address:	P. O. Drawer 370 Hobbs, NM 88240	
Zone Telephone/FAX:	Phone: 806-732-2045 Fax: 806-732-2500	
PHMSA Sequence #:	1638	
Qualified Individuals:	Charles Carter Regional Manager, West NGL P/L & Frac (713) 381-7507 (Office) (b) (6) (Home) (Mobile)	17 miles West on Highway 62/180 Seminole, TX 79360
	Robert North Area Supervisor (505) 599-2895 (Office) (b) (6) (Home) (Mobile)	3621 East Main P.O. Box 3255 Farmington, NM 87499-3255
	Benny Bliss Pipeline Supervisor (713) 381-7513 (Office) (b) (6) Home) Mobile)	P.O. Box 370 Hobbs, NM 88240
	James "Bo" Vejil Maintenance Coordinator (713) 381-7509 (Office) (b) (6) (Home) (Mobile)	P.O. Box 370 Hobbs, NM 88240
Description of Zone:	The Pipeline carries petroleum products (including: Natural gasoline, Naphtha) in the areas shown in **FIGURE 1-4** and **FIGURE 1-5**.	
Response Zone Consists of the Following Counties:	Bernalillo, Chaves, De Baca, Guadalupe, Lea, Lincoln, McKinley, Rio Arriba, San Juan, Sandoval, Santa Fe, Torrance (New Mexico); Gaines (Texas)	

FIGURE 1-3 - Rocky Mountain Zone INFORMATION SUMMARY, CONTINUED

	SECTION	DIAMETER	PRODUCT
Line Sections/Products Handled: (Refer to Product Characteristic and Hazards, FIGURE C.6-1)	Kutz - Huerfano	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Huerfano ? Lybrook	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Lybrook ? San Luis	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	San Luis ? San Ysidro	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels

	San Ysidro ? Edgewood	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Edgewood - Estancia	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Estancia ? Duran	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Duran - Mesa	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Mesa ? White Lakes	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Navajo Lovington Refinery ? Hobbs	8-5/8? O.D. x 0.188 W.T. API-5LX-X52 ERX STEEL LINE PIPE	Refined Fuels
	Dollarhide Lateral - Jal Injection to Dollarhide Injection	6.25"	Refined Fuels
	Dollarhide Lateral - Texaco-Eunice to Jal Injection	6.25"	Refined Fuels
	Jal Injection	4.5"	Refined Fuels
Worse Case Discharge (bbls):	(b) (7)(F), (b) (3)		
Alignment Maps (Piping, Plan Profiles):	Maintained at: Data Resources in Houston, TX		
Spill Detection and Mitigation Procedures:	Refer to **SECTION 2** and **APPENDIX C**.		
Statement of Significant and Substantial Harm:	The response zones in this system all contain pipelines greater than 6 5/8 inches and are longer than ten miles. At least one section of pipeline in each response zone crosses a major waterway or comes within five miles of a public drinking water intake. Therefore, in accordance with 49 CFR 194.103(c), each entire response zone described in this Plan will be treated as if expected to cause significant and substantial harm.		
Date Prepared:	July 2003		

The information contained in this Plan is intended to be used as guidelines for the spill responder. Actual circumstances will vary and will dictate the procedures to be followed, some of which may not be included in this manual.

NOTE: For further information on the Qualified Individuals' training and qualifications, refer to **SECTION 4.5** and **APPENDIX A.2** in this Plan.

FIGURE 1-4 PIPELINE SYSTEM OVERVIEW MAP

Click to view/print System Overview

FIGURE 1-5 ROCKY MOUNTAIN ZONE MAP

Click to view/print Zone Map

1.1 PURPOSE/SCOPE OF PLAN

The purpose of this Spill Response Plan (Plan) is to provide guidelines to quickly, safely, and effectively respond to a spill from the Rocky Mountain Zone. The pipelines within this zone are owned by Mid-America Pipeline Company, LLC and operated by Enterprise Products Operating, LLC.

This Plan is intended to satisfy the requirements of the Oil Pollution Act of 1990 (OPA 90), and has been prepared in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and applicable Area Contingency Plans (ACP), EPA Region VI Regional Integrated Contingency Plan and Region VI South Central Area Contingency Plan. Specifically, this Plan is intended to satisfy:

- Pipeline Hazardous Material Safety Administration (PHMSA), U.S. Department of Transportation requirements for an OPA 90 Plan (49 CFR 194)

1.2 PLAN REVIEW AND UPDATE PROCEDURE

In accordance with 49 CFR Part 194.121, this Plan will be reviewed annually and modified to address new or different operating conditions or information included in the Plan. Upon review of the response plan for each five-year period from the latest date of approval, the plan will be submitted to PHMSA. Company internal policy states that the Plan will be reviewed annually, modified as appropriate, and address improvements identified during drills. In the event the Company experiences a Worst Case Discharge, the effectiveness of the plan will be evaluated and updated as necessary. If a new or different operating condition or information would substantially effect the implementation of the Plan, the Company will modify the Plan to address such a change and, within 30 days of making such a change, submit the change to PHMSA. Examples of changes in operating conditions that would cause a significant change to the Plan include:

CONDITIONS REQUIRING REVISIONS & SUBMISSIONS
Relocation or replacement of the transportation system in a way that substantially effects the information included in the Plan, such as a change to the Worst Case Discharge volume.
A change in the type of oil handled, stored, or transferred that materially alters the required response resources.
A change in response procedures.
A change in key personnel Qualified Individuals (QI).
A change in the name of the Oil Spill Removal Organization (OSRO).
Any other changes that materially affect the implementation of the Plan.

A change in the NCP or ACP that has significant impact on the equipment appropriate for response activities.

All requests for changes must be made through the Senior Compliance Administrator and will be submitted to PHMSA by the Environmental Manager, Safety/PSM Coordinator, Area Supervisor and the Area Manager.

1.3 CERTIFICATION OF ADEQUATE RESOURCES

CERTIFICATION
Pursuant to the Clean Water Act Section 311(j)(5)(F)

Enterprise Products Operating, LLC, Rocky Mountain Zone

The undersigned, the owner or operator of the above referenced pipeline who is authorized to sign this certification on behalf of the Company, hereby certifies that the above referenced pipeline has prepared a response plan which will be implemented in the event of a worst case discharge of oil. I also certify that the Plan is in effect for this pipeline and that Operator personnel are trained in the implementation of this Plan.

I further certify that 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 a discharge is ensured by contract or other approved means.

Also, I certify that this Plan meets the applicable requirements of The Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation (49 CFR 194).

Enterprise Products Operating, LLC, Operator of the Mid-America Pipeline Company, LLC by Enterprise Products GP, LLC, its General Partner.

Terry L. Hurlburt
Vice President & General Manager - Operations

1.4 MANAGEMENT OF CHANGE REQUEST FORM

FIGURE 1.4-1 - MANAGEMENT OF CHANGE REQUEST FORM

Asset Name:			**Change Request Number: CR-**		
Asset Location:			Originator:		
Proposed Date of Change			Date of Origination:		
Associated Work Order Number:			Process Area:		
☐ Permanent	☐ Temporary	Expiration Date if Temporary Change:			
Line No:		Drwg. No:		Equipment No.	
Description of Change (Scope):					
Technical Basis for Change (Justification):					
Nature of the Change:					
Change affects:	☐ Safety	☐ Operations	☐ Environmental	☐ Maintenance	☐ Other
Type of Change:					
☐ Equipment	☐ Process	☐ Instrumentation	☐ Piping	☐ Other	
☐ Material	☐ Procedure	☐ Chemical	☐ Controls/Setpoint		
Conceptual Approval	Supervisor: Manager:		Date: Date:		

Pre-Modification Checklist (tasks):	Required?	Assigned Responsibility	Due Date	Date Completed
Elect. Area Classification Drwg. Review	☐ Yes ☐ NA			
Electrical/Controls Design Review	☐ Yes ☐ NA			
Environmental Review	☐ Yes ☐ NA			
Mechanical Design Review	☐ Yes ☐ NA			
P&ID Changes (Conceptual)	☐ Yes ☐ NA			
PFD Changes (Conceptual)	☐ Yes ☐ NA			
Pipeline Integrity Review	☐ Yes ☐ NA			
Facility Integrity Review	☐ Yes ☐ NA			
Process Design Review	☐ Yes ☐ NA			
Process Hazard Analysis - **Required**	☐ Yes ☐ NA			
PSM Considerations	☐ Yes ☐ NA			
RMP Considerations	☐ Yes ☐ NA			

Job Plan	☐ Yes ☐ NA			
Operating Procedures	☐ Yes ☐ NA			
Maintenance Procedures	☐ Yes ☐ NA			

Pre-modification Approvals (Ready for construction)	Name Approved	Approval Date	Signature Approval
Originator			
Field Engineer (Required Approval)			
Pipeline Supervisor (Required Approval)			
Safety/PSM Coordinator (Required Approval)			
Manager (Required Approval)			

FIGURE 1.4-1 - MANAGEMENT OF CHANGE REQUEST FORM, CONTINUED

Pre-Startup Checklist	Required?	Assigned Responsibility	Due Date	Date Completed
Affected personnel informed	☐ Yes			
Contractor Requirements changed	☐ Yes ☐ NA			
Emergency Procedure changes	☐ Yes ☐ NA			
Maintenance Procedure completed	☐ Yes ☐ NA			
Operating Procedures completed	☐ Yes ☐ NA			
Operations Control Procedures completed	☐ Yes ☐ NA			
Personnel Trained on Procedure (documented)	☐ Yes ☐ NA			
Chemical Inventory List update	☐ Yes ☐ NA			
Environmental Permit Confirmation - filed	☐ Yes ☐ NA			
Cathodic Protection completed	☐ Yes ☐ NA			
Cause & Effect Matrix updated (P&ID)	☐ Yes ☐ NA			
Electrical/Instrument Drawing	☐			

updated	Yes NA			
Equipment File update completed	☐ Yes ☐ NA			
Valve and Equipment Tagging	☐ Yes ☐ NA			
Surge Analysis revision	☐ Yes ☐ NA			
MOP/MAOP changes	☐ Yes ☐ NA			
Maintenance Report completed	☐ Yes ☐ NA			
Process Description (Job Books onsite)	☐ Yes ☐ NA			
P&ID Changes (Redline)	☐ Yes ☐ NA			
PFD Changes (Redline)	☐ Yes ☐ NA			
Map (Redline)	☐ Yes ☐ NA			
Visitor Orientation update	☐ Yes ☐ NA			
Workplace Hazard Assessment revision	☐ Yes ☐ NA			
PHA Recommendations completed	☐ Yes ☐ NA			
PSSR (Pre-Startup Safety Review)	☐ Yes ☐ NA			
Is there an exceptions list for this PSSR?				
Other	☐ Yes ☐ NA			

Pre-Startup Approvals (Ready for startup)	**Name Approved**	**Approval Date**	**Signature Approved**
Originator			
Pipeline Operations Supervisor (required)			
Engineering			
Maintenance Coordinator			
Manager			
Safety / PSM Coordinator (required)			

NOTE: ALL DOCUMENTATION MUST BE WITH THE CHANGE REQUEST FOR VERFICATION PRIOR TO THE PSSR.

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS

Click to view/print PHMSA letter March 2, 2004

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA Approval letter February 15, 2005

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA NIIMS and NCP Letter

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA Re-Submittal Letter 06/4/2008

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA Approval letter May 23, 2006

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA Submittal 09/12/2011

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA Submittal Letter September 2011

1.5 AGENCY SUBMITTAL/APPROVAL LETTERS, CONTINUED

Click to view/print PHMSA Plan Receipt Email September 2011

SECTION 2 Last Revised: October 2008

INITIAL RESPONSE ACTIONS

FIGURE 2-1 - INITIAL RESPONSE ACTION GUIDELINES

RESPONSE ACTION
First Person to Discover Spill
Immediately notify Pipeline Control who will contact the appropriate Local Emergency Responder. Take appropriate action to protect life and ensure safety of personnel.
Secure the scene. Isolate the area and assure the safety of people and the environment. Keep people away from the scene and outside the safety perimeter.
If safe to do so, attempt to contain leading edge of land base spills with earth moving equipment (shovels etc).
If safe to do so, erect berm large enough to maintain containment until the arrival of designated spill contractors.
Pipeline Control (Liquid Control)
Remotely controlled motor operated valves will be operated by Pipeline Control as soon as a leak is detected.
Contact Technician on call.
Notify appropriate regulatory agencies (**FIGURE 3.1-4**). • National Response Center (NRC) • State Emergency Response Commission (SERC) • Local Emergency Planning Committee (LEPC) (if applicable)
Notify Local Emergency Responders.
Qualified Individual
Assume role of Incident Commander until relieved.
Conduct preliminary assessment of health and safety hazards.
Evacuate non-essential personnel, notify emergency response agencies to provide security, and evacuate surrounding area (if necessary).
Call out spill response contractors (**FIGURE 3.1-4**).
If safe to do so, direct responders to shut down potential ignition sources in the vicinity of the spill, including motors, electrical pumps, electrical power, etc.
If safe to do so, direct responders to shut down and control the source of the spill. Be aware of potential hazards associated with product and ensure that lower explosive limits (LELs) are within safe levels before sending personnel into the spill area.
If safe to do so, direct responders to stabilize and contain the situation. This may include berming or deployment of containment and/or sorbent boom.
For low flash oil ($<100^{o}F$); consider applying foam over the oil, using water spray to reduce vapors, grounding all equipment handling the oil, and using non-sparking tools.
If there is a potential to impact shorelines, consider lining shoreline with sorbent or diversion boom to reduce impact.
Obtain the information necessary to complete the Preliminary Incident Report Form (**FIGURE 3.1-2**) and phone this information to Pipeline Control.
Incident Commander/Qualified Individual
Activate all or a portion of Spill Management Team (SMT) (as necessary).
Ensure the SMT has mobilized spill response contractors (if necessary). It is much better to demobilize equipment and personnel, if not needed, than to delay contacting them if they are

needed.
Document all response actions taken, including notifications, agency/media meetings, equipment and personnel mobilization and deployment, and area impacted.
Initiate spill tracking and surveillance operations. Determine extent of pollution via surveillance aircraft or vehicle. Estimate volume of spill utilizing information in **SECTION 2.2** and **SECTION 2.3**. Send photographer/videographer if safe.
SECONDARY RESPONSE ACTIONS (Refer to SMT job descriptions in **SECTION 4.6** for detailed checklists of responsibilities.)
FACILITY SPECIFIC RESPONSE CONSIDERATIONS (Refer to **SECTION 6** for maps and sensitivity locations.)

2.1 SPILL DETECTION AND MITIGATION PROCEDURES

See **APPENDIX C.1** for spill detection protocols.

Each spill mitigation situation is unique and must be treated according to the circumstance present. In every situation, however, personnel safety must be assessed as the first priority. The potential for ignition and/or toxic exposure must be promptly evaluated. Spill mitigation procedures are listed in FIGURE 2.1-1. Worst case discharge volume calculations and discussion are provided in **APPENDIX C**.

FIGURE 2.1-1 - SPILL MITIGATION PROCEDURES

TYPE	MITIGATION PROCEDURE
Failure of Transfer Equipment	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Terminate transfer operations and close block valves. 3. Drain product into containment areas if possible. 4. Eliminate sources of vapor cloud ignition by shutting down all engines and motors.
Tank/Cavern Overfill/Failure	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Shut down or divert source of incoming flow to tank. 3. Transfer fluid to another tank with adequate storage capacity (if possible). 4. Shut down source of vapor cloud ignition by shutting down all engines and motors. 5. Ensure that dike discharge valves are closed. 6. Monitor diked containment area for leaks and potential capacity limitations. 7. Begin transferring spilled product to another tank as soon as possible.
Piping Rupture/Leak (under pressure and no pressure)	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Follow the procedures outlined in the O&M Manual-Abnormal or Emergency Operations.

Fire/Explosion	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at risk of injury. 2. Notify local fire and police departments. 3. Attempt to extinguish fire if it is in incipient (early) stage. 4. Shut down transfer or pumping operation. Attempt to divert or stop flow of product to the hazardous area (if it can be done safely). 5. Eliminate sources of vapor cloud ignition by shutting down all engines and motors. 6. Control fire before taking steps to contain spill.
Manifold Failure	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Terminate transfer operations immediately. 3. Isolate the damaged area by closing block valves on both sides of the leak/rupture. 4. Shut down source of vapor cloud ignition by shutting down all engines and motors. 5. Drain fluids back into containment areas (if possible).

2.2 SPILL SURVEILLANCE GUIDELINES

- Surveillance of an oil spill should begin as soon as possible following discovery to enable response personnel to assess spill size, movement, and potential impact locations
- Dispatch observers to crossings downstream or down gradient to determine the spills maximum reach
- Clouds, shadows, sediment, floating organic matter, submerged sand banks or wind-induced patterns on the water may resemble an oil slick if viewed from a distance
- Use surface vessels to confirm the presence of any suspected oil slicks (if safe to do so); consider directing the vessels and photographing the vessels from the air, the latter to show their position and size relative to the slick
- It is difficult to adequately observe oil on the water surface from a boat, dock, or shoreline
- Spill surveillance is best accomplished through the use of helicopters or small planes; helicopters are preferred due to their superior visibility and maneuverability
- If fixed-wing planes are to be used, high-wing types provide better visibility than low-wing types
- All observations should be documented in writing and with photographs and/or videotapes
- Describe the approximate dimensions of the oil slick based on available reference points (i.e. vessel, shoreline features, facilities); use the aircraft or vessel to traverse the length

and width of the slick while timing each pass; calculate the approximate size and area of the slick by multiplying speed and time

- Record aerial observations on detailed maps, such as topographic maps
- In the event of reduced visibility, such as dense fog or cloud cover, boats may have to be used to patrol the area and document the location and movements of the spill; however, this method may not be safe if the spill involves a highly flammable product
- Surveillance is also required during spill response operations to gauge the effectiveness of response operations; to assist in locating skimmers; and assess the spill's size, movement, and impact
- An Oil Spill Surveillance Checklist is provided in **FIGURE 2.2-1**.

FIGURE 2.2-1 - OIL SPILL SURVEILLANCE CHECKLIST

Record your observations of spilled oil either in a notebook or directly on a chart of the area under observation. This checklist is an aid for organizing your observations. File used forms with local area office to retain for five years.

General Information	
Date:	Tidal or river stage (flood, ebb, slack, low water):
Time:	On-scene weather (wind, sea state, visibility):
Incident name:	Platform (helicopter, fixed-wing aircraft, boat):
Observer?s name:	Flight path/trackline:
Observer's affiliation:	Altitude where observation taken:
Location of source (if known):	Areas not observed (i.e. foggy locations, restricted air spaces, shallow water areas):
Oil Observations	
Slick location(s):	Color and appearance (i.e. rainbow, dull or silver sheen, black or brown in color or mousse):
Slick dimensions:	Percent coverage:
Orientation of slick(s):	Is oil recoverable (Y/N)?:
Distribution of oil (i.e. windrows, streamers, pancakes or patches):	
Considerations	
• During surveillance flights, travel beyond known impacted areas to check for additional oil spill sites • Include the name and phone number of the person making the observations	

• Clearly describe the locations where oil is observed and the areas where no oil has been seen
Other Observations
Response Operations
Equipment deployment (general locations where equipment is working and whether they are working in the heaviest concentration of oil):
Boom deployment (general locations of boom, whether the boom contains oil, and whether the oil entrains under the boom):
Environmental Observations
Locations of convergence lines, terrain, and sediment plumes:
Locations of debris and other features that could be mistaken for oil:
Wildlife present in area (locations and approximate numbers):

2.3 SPILL VOLUME ESTIMATING

Early in a spill response, estimation of spill volume is required in order to:

- Report to agencies
- Determine liquid recovery requirements
- Determine personnel and equipment requirements
- Estimate disposal and interim storage requirements

Some rapid methods to estimate spill size are:

- Transfer operations: Multiply the pumping rate by the elapsed time that the leak was in progress, plus the drainage volume of the line between the two closest valves or isolation points (volume loss = pump rate [bbls/min] x elapsed time [min] + line contents [bbl])
- Tank overfills: Elapsed time multiplied by the pumping rate
- Visual assessment of the surface area and thickness (**FIGURE 2.3-1**); the method may yield unreliable results because:

- Interpretation of sheen color varies with different observers
- Appearance of a slick varies depending upon amount of available sunlight, sea-state, and viewing angle
- Different products may behave differently, depending upon their properties

FIGURE 2.3-1 - SPILL ESTIMATION FACTORS

OIL THICKNESS ESTIMATIONS				
Standard Form	Approx. Film Thickness		Approx. Quantity of Oil in Film	
	inches	mm		
Barely Visible	0.0000015	0.00004	25 gals/mile^2	44 liters/km^2
Silvery	0.000003	0.00008	50 gals/mile^2	88 liters/km^2
Slightly colored	0.000006	0.00015	100 gals/mile^2	179 liters/km^2
Brightly colored	0.000012	0.0003	200 gals/mile^2	351 liters/km^2
Dull	0.00004	0.001	666 gals/mile^2	1,167 liters/km^2
Dark	0.00008	0.002	1,332 gals/mile^2	2,237 liters/km^2
Thickness of light oils: 0.0010 inches to 0.00010 inches				
Thickness of heavy oils: 0.10 inches to 0.010 inches				

2.3.1 Estimating Spill Trajectories

In some cases, oil spill trajectories should be estimated in order to predict direction and speed of the slick movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas, and also provide an estimate of the most effective location in which to mobilize spill response resources for protection, containment, and recovery.

Oil spill trajectories can be estimated using vector addition or with computer programs such as CAMEO. Hand calculations typically utilize the following assumptions:

- Oil moves at approximately the same direction and speed as the water currents, unless the winds are strong
- Wind speed can be multiplied by 0.034 to determine the effect of winds on speed and direction of spill movement
- The combined effects of winds and currents can be added to estimate spill movement speed and direction

More sophisticated predictions can be obtained from computer programs. Oil spill trajectory services can be obtained from:

- National Oceanic and Atmospheric Administration (NOAA) through the Federal On-

Scene Commander (FOSC)

- Private consulting firms

2.4 INITIAL CONTAINMENT ACTIONS

Initial containment actions will focus on utilizing containment on site in the most effective manner to:

- Prevent the oil from impacting water, thereby reduce the surface area and the shoreline to be cleaned.
- Concentrate the oil (when safe to do so), making physical recovery more efficient.
- Limit the environmental impact to the immediate spill area.

2.4 INITIAL CONTAINMENT ACTIONS, CONTINUED

Selection of the appropriate location and method will depend upon:

- Length of time spill occurs before being noticed
- Amount of spill
- Area of coverage
- Environmental factors such as wind speed and direction
- Oil's characteristics

2.4.1 Safety Considerations

- Containment actions should not be conducted during inclement weather or unsafe conditions, such as high winds, fast currents, or unstable terrain.
- Eliminate all ignition sources.
- Avoid contact with the spilled product.
- Use respiratory protection (if applicable).
- Ensure that the area remains secure to air traffic.

SECTION 3 Last Revised: July 2014

NOTIFICATIONS/TELEPHONE NUMBERS

3.1 EMERGENCY INFORMATION AND NOTIFICATION PROCEDURES

The notification sequence for a spill is as follows:

- Pipeline personnel will identify and control the source of a spill, if safe to do so, then immediately notify Pipeline Control then notify the Qualified Individual.
- Once the Qualified Individual arrives on scene they may assume the role as Incident Commander. The Incident Commander will conduct notifications as illustrated in the Notification Flow Chart **FIGURE 3.1-1**.

The priority of actions and response procedures will depend upon actual circumstances and will be determined by the Incident Commander.

This section also contains the following:

- FIGURE 3.1-2 provides a External/Spill Report Form. This form is utilized for initial and follow-up notifications. Follow-up notifications are the responsibility of the Liaison Officer.
- FIGURE 3.1-3 is the required DOT/PHMSA Accident Report Form to be submitted to the agency within 30 days.
- FIGURE 3.1-4 provides a notification summary and documentation form to assist in documenting notifications.

FIGURE 3.1-1 - EMERGENCY NOTIFICATION FLOW CHART

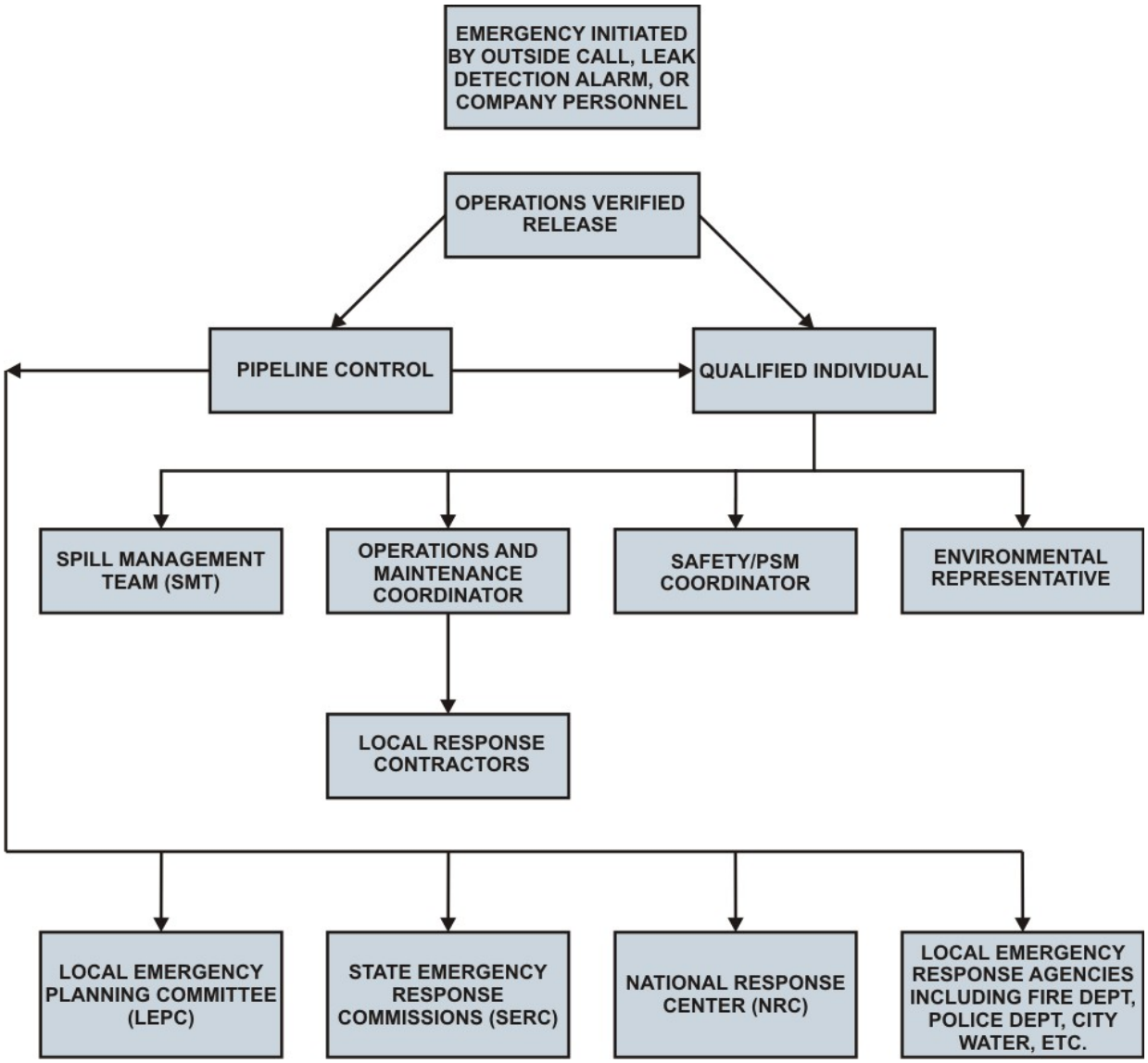


FIGURE 3.1-2 - PRELIMINARY INCIDENT REPORT FORM

The Enterprise Products Operating LLC Preliminary Incident Report may be found by accessing the ECIRTS system via the company?s internal website.

FIGURE 3.1-3 - DOT/PHMSA ACCIDENT REPORT FORM

Click to view/print DOT/PHMSA Accident Report Form

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS

***Represents after-hours telephone numbers**

AFFILIATION	CONTACT NUMBERS	TIME
Company Personnel		
Management Personnel		
Carter, Charles Regional Manager, West NGL P/L & Frac **Qualified Individual**	(713) 381-7507 (Office) (b) (6) Mobile) Home)	
North, Robert Area Supervisor **Qualified Individual**	(505) 599-2895 (Office) (b) (6) (Mobile) (Home)	
Bliss, Benny Pipeline Supervisor **Qualified Individual**	(713) 381-7513 (Office) (b) (6) Mobile) Home)	
Environmental and Safety Contacts		
Fields, Jon Director, Field Environmental	(713) 381-6684 (Office) (b) (6) (Mobile)	
Anderson, Don Environmental Manager	(303) 820-5635 (Office) (b) (6) (Mobile)	
Heap, Jim Environmental Scientist - Hobbs, Dollarhide, Jal Injection	(432) 686-5404 (Office) (b) (6) (Mobile)	
Long, Thomas Environmental Scientist - Kutz to White Lakes	(505) 599-2286 (Office) (b) (6) (Mobile)	
Lieb, James Environmental Scientist	(505) 599-2159 (Office) (b) (6) (Mobile)	
Seale, Runell Environmental Scientist	(505) 599-2141 (Office) (b) (6) (Mobile)	
Hampton, Mari Beth Safety Coordinator	(505) 599-2065 (Office) (b) (6) (Mobile)	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS , CONTINUED

***Represents after-hours telephone numbers**

AFFILIATION	CONTACT NUMBERS	TIME
Company Personnel		
Environmental and Safety Contacts		
Holland, Dennis Safety Coordinator	(505) 599-2500 (Office) (b) (6) (Mobile) (Home)	
Kingston, Joel Safety Coordinator	(713) 381-7505 (Office) (b) (6) (Mobile) (Home)	
Crawford, Victor	(505) 599-2264 (Office)	

Safety Coordinator	(b) (6) (Mobile)	
Maintenance Personnel		
Lee, Chuck Maintenance Coordinator	(505) 599-2896 (Office) (b) (6) (Mobile) (Home)	
Archuleta, Jeff Maintenance Specialist	(505) 599-2897 (Office) (b) (6) (Mobile) (Home)	
"Bo" Vejil, James Maintenance Coordinator **Qualified Individual**	(713) 381-7509 (Office) (b) (6) (Mobile) (Home)	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Initial		
National Response Center (NRC)	(800) 424-8802* (202) 267-2675	
Recommended		
Federal Agencies		
Bureau of Land Management - Albuquerque	(505) 761-8700	
Bureau of Land Management - Farmington	(505) 505-564-7600	
Environmental Protection Agency, Region VI	(800) 887-6063*	
U.S. Fish & Wildlife, Region 2	(505) 248-6911	
State Agencies - New Mexico		
Department of Homeland Security & Emergency Management	(505) 476-9600	
New Mexico Environment Department	(505) 827-2855 (800) 219-6157	
State Emergency Response Commission (SERC)	(505) 476-9640	
County Agencies - New Mexico		
Bernalillo County		
Bernalillo Co. Homeland Security and Emergency Management	(505) 468-1307	

Bernalillo Co. LEPC	(505) 750-7681	
Bernalillo Co. Sheriff Department	(505) 468-7100	
Lovelace Medical Center	(505) 727-8000	
University Hospital	(505) 272-2111	
University of New Mexico Hospital, Northeast Heights Clinic	(505) 272-2700	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
County Agencies - New Mexico		
Chaves County		
Chaves Co. LEPC	(575) 624-6140	
Chaves Co. Sheriff Department	(505)355-2405	
Eastern New Mexico Medical Center	(505) 622-8170	
De Baca County		
De Baca Co. LEPC	(575) 355-2405	
De Baca Co. Sheriff Department	(505) 355-2405	
Guadalupe County		
Guadalupe Co. LEPC	(575) 472-1241	
Guadalupe Co. Sheriff Department	(575) 472-3711	
Lea County		
Hobbs Fire Department	(505) 397-9308	
Hobbs Police Department	(575) 397-9265	
Lea Co. LEPC	(575) 396-8607	

Lea Co. Sheriff Department	(575) 396-3611	
Lea Regional Medical Center	(575) 492-5000	
Lovington Fire Department	(575) 396-2359	
Lovington Police Department	(575) 396-2811	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
County Agencies - New Mexico		
Lincoln County		
Lincoln Co. LEPC	(575) 336-8602	
Lincoln Co. Sheriff Department	(575) 648-2341	
McKinley County		
McKinley Co. LEPC	(505) 722-4248	
McKinley Co. Sheriff Department	(505) 722-7204	
Rio Arriba County		
Rio Arriba Co. LEPC	(505)-747-6367	
Rio Arriba Co. Sheriff Department	(505) 753-3329	
San Juan County		
Bloomfield Fire Department	(505) 632-6363	
Bloomfield Police Department	(505) 632-6311	
San Juan Co. Emergency Prepardness	(505) 334-1180	
San Juan Co. LEPC	(505) 334-1180	
San Juan Co. Sheriff Department	(505) 334-6107	

San Juan Regional Medical Center	(505) 609-2000	
Sandoval County		
Bernalillo County Fire & Rescue	(505) 314-0130	
Bernalillo Police Department	(505) 891-7226	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
County Agencies - New Mexico		
Sandoval County		
Pueblo de Cochiti Police Department	(505) 465-3136	
Sandoval Co. LEPC	(505) 867-0245*	
Sandoval Co. Sheriff Department	(505) 867-7526 (505) 891-7226	
Santa Ana Police Department	(505) 771-6730	
Santa Fe County		
Santa Fe Co. Fire Department	(505) 992-3070	
Santa Fe Co. LEPC	(505) 992-3072	
Santa Fe Co. Sheriff Department	(505) 986-2400	
Torrance County		
City of Moriarty Fire Department	(505) 832-4301	
Moriarty Police Department	(505) 832-6060	
Torrance Co. 911 Dispatch	(505) 384-2706* (505) 384-2705	
Torrance Co. LEPC	(505) 246-4748	
Torrance Co. Sheriff Department	(505) 246-4773	

State Agencies - Texas		
Railroad Commission of Texas	(512) 463-6788*	
State Emergency Response Commission (SERC)	(800) 832-8224	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
State Agencies - Texas		
Texas Division of Emergency Management (TDEM)	(512) 424-2000*	
Texas State Fire Marshal	(512) 305-7900 (800) 578-4677	
County Agencies - Texas		
Andrews County		
Andrews Co. LEPC	(432) 523-1401	
Andrews Co. Sheriff Department	(432) 523-5545	
Andrews Police Department	(432) 523-5675	
Andrews Volunteer Fire Department	(432) 523-3111	
Gaines County		
Gaines Co. LEPC	(432) 758-5411	
Gaines Co. Sheriff Department	(432) 758-4023	
Gaines County Office of ER Management	(432) 758-4026	
Seminole Police Department	(432) 758-9871	
Seminole Vol Fire Department	(432) 758-3621	
Lee County		
Blue (Branch) Volunteer Fire	(512) 273-2484	

Department		
Lee Co. LEPC	(979) 773-2268	
Lee Co. Sheriff Department	(979) 542-2800	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended , Continued		
County Agencies - Texas		
Lee County		
Lexington Police Department	(979) 773-4844	

FIGURE 3.1-4 - NOTIFICATIONS AND TELEPHONE NUMBERS, CONTINUED
Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Recommended, Continued		
USCG Classified OSRO's		
Garner Environmental Services Dallas, Texas	(800) 424-1716*	
Heritage Environmental Services Coolidge, AZ	(800) 487-7455*	
Non-Classified OSRO's		
Talon LPE Midland, TX	432-522-2133	

SECTION 4 Last Revised: April 2008

RESPONSE TEAM ORGANIZATION

4.1 SPILL MANAGEMENT TEAM (SMT) DESCRIPTION

The Company has developed its oil spill response organization around the Incident Command System (ICS), which provides the structure for effective management of spill resources. The ICS would be activated and mobilized in accordance with the size and complexity of the Incident. Members of the SMT are listed in **FIGURE 3.1-4**. Job descriptions for each SMT member are provided in **SECTION 4.6**. The SMT will train by participating in exercises as noted in **APPENDIX A**.

4.2 ACTIVATION PROCEDURES

Activation of the SMT may be accomplished in stages as illustrated in **FIGURE 4.1** and described below:

- First Responder discovers the spill and notifies Pipeline Control.
- Pipeline Control notifies the Qualified Individual.
- Qualified Individual determines whether to activate SMT.
- QI goes to Command Post and assumes IC.
- IC notifies the SMT Section Chiefs and Command Staff.
- Section Chiefs and Command Staff notify necessary personnel.
- IC briefs SMT upon arrival at Command Post.
- IC and Section Chiefs continually assess staffing needs.
- IC activates additional SMT personnel, if needed.
- IC de-activates SMT personnel that are not needed.

4.3 TEAM MEMBER RESPONSE TIMES

The Incident Commander and SMT will mobilize to the Command Post initially. The SMT's maximum expected arrival time during off hours is 1-3 hours.

4.4 UNIFIED COMMAND SYSTEM

The Unified Command System (UCS) is the accepted method for organizing key spill management entities within the Incident Command System. The primary entities include:

- Federal On-Scene Coordinator
- State On-Scene Coordinator
- Company Incident Commander

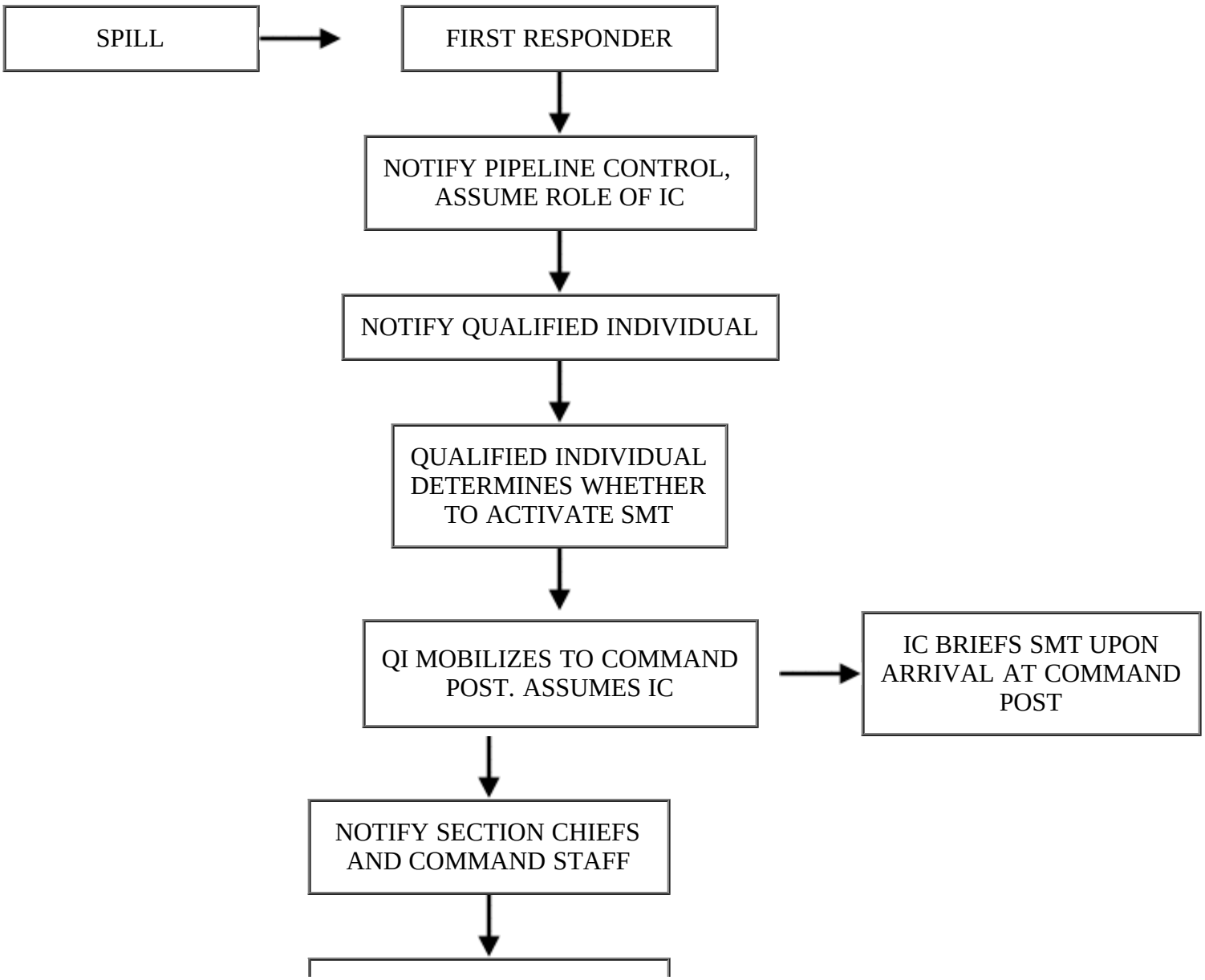
These three persons share decision-making authority within the Incident Command System and are each responsible for coordinating other Federal, State and Company personnel to form an effective and integrated Unified Command System (UCS).

4.5 QUALIFIED INDIVIDUAL (QI)

The QI has the following responsibilities and authorities as required by the Oil Pollution Act of 1990 (40 CFR Parts 9 and 112):

- Activate internal alarms and hazard communication systems to notify all appropriate personnel
- Notify all response personnel as needed
- Identify character, exact source, amount and extent of the release and other necessary items needed for notifications
- Notify and provide information to appropriate Federal, State and Local authorities
- Assess the interaction of the spilled substance with water and/or other substances stored at the Facility and notify on-scene response personnel of assessment
- Assess possible hazards to human health and the environment
- Coordinate rescue and response actions
- Assess and implement prompt removal actions
- Authority to obligate funds required to carry out all required and directed oil spill response activities
- Direct cleanup activities until properly relieved of responsibility or incident is terminated

FIGURE 4.1 - SPILL MANAGEMENT TEAM (SMT) ACTIVATION PROCEDURE



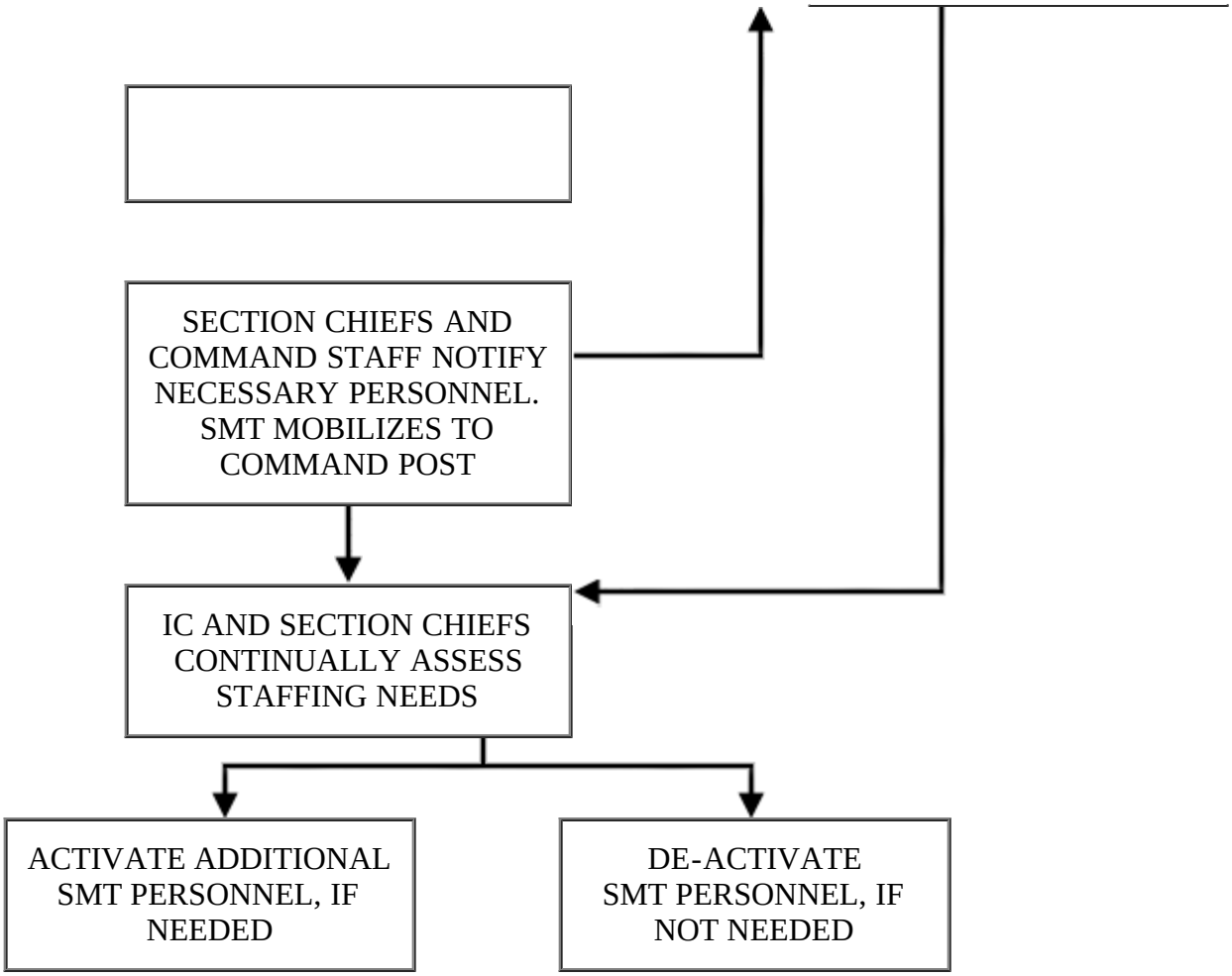
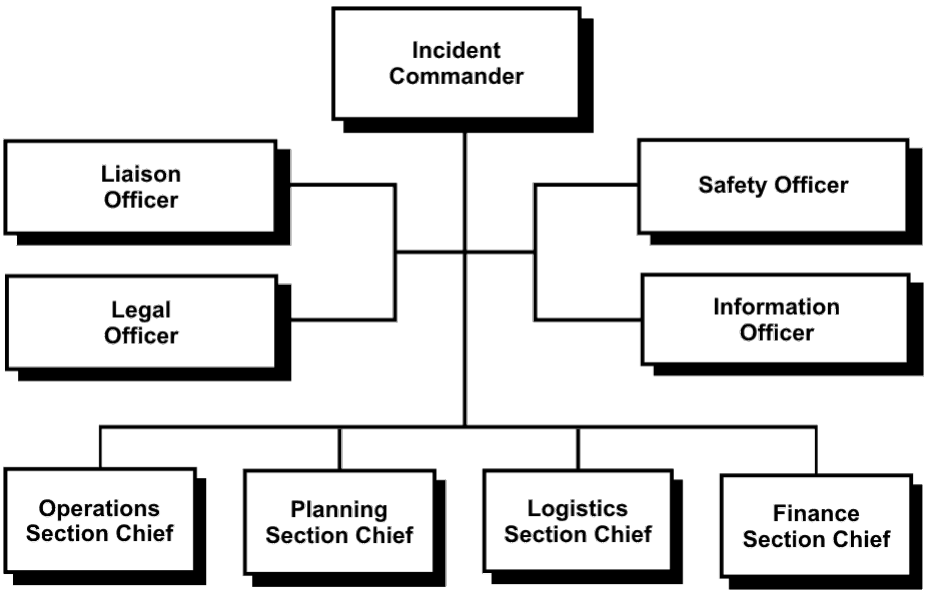


FIGURE 4.2 - SPILL MANAGEMENT TEAM (SMT) ORGANIZATIONAL CHART



Note: Refer to **FIGURE 3.1-4** for SMT Team Members.

4.6 SPILL MANAGEMENT TEAM (SMT) JOB DESCRIPTION CHECKLISTS

The following job description checklists are intended to be used as a tool to assist SMT members in their particular positions within the Incident Command System (ICS). The position descriptions and checklists were derived from the Field Operations Guide (FOG).

- Incident Commander
- Information Officer
- Safety Officer
- Liaison Officer
- Legal Officer
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance Section Chief

Incident Commanders for oil discharges will be organized within the Unified Command structure which includes, but is not limited to:

- The predesignated Federal On Scene Coordinator (FOSC) acting under the authority of the National Contingency Plan (NCP)
- The predesignated State On Scene Coordinator (SOSC) representing state and local response agencies
- The representation of the Responsible Party (RP)

The Unified Command is responsible for the overall management of the incident. The Unified Command directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The Unified Command may activate Deputy Incident Commanders to assist in carrying out Incident Command responsibilities.

The primary goal of this system is to establish and maintain control of the emergency response. If the emergency involves a multi-jurisdictional response (Federal and State), the Unified Command Structure (UCS) should be established. **Realize that the Federal On-Scene Coordinator (FOSC) does have the authority to override the Incident Commander and assume control of the response**. Every effort should be made to establish a collaborative relationship to manage the incident site with the appropriate responding agencies.

As soon as possible but not later than one (1) week following an incident, the Incident Commander shall conduct a critique of the response and follow-up of action items. Participants shall include Operations Control personnel, Company supervisors, and employees and outside agencies involved in the response. An Incident Debriefing Form is provided in **SECTION 8.3**.

INCIDENT COMMANDER	INITIALS	DATE & TIME
Review Common Responsibilities.		
Assess the situation and/or obtain incident briefing from prior Incident Commander.		
Determine Incident Objectives and Strategies in accordance with		

Area Contingency Plan(s) (ACP).		
Establish the immediate priorities.		
Establish an Incident Command Post.		
Establish an appropriate organization.		
Brief Command Staff and Section Chiefs.		
Ensure Planning Meetings are scheduled as required.		
Approve and authorize the implementation of an Incident Action Plan.		
Determine information needs and advise Command and General Staff.		
Coordinate activity for all Command and General Staff.		
Manage incident operations.		
Approve requests for additional resources and requests for release of resources.		
Approve the use of trainees, volunteers and auxiliary personnel.		
Authorize release of information to news media.		
Ensure incident funding is available.		
Notify Natural Resource Damage Assessment (NRDA) and coordinate NRDA Team.		
Coordinate incident investigation responsibilities.		
Seek appropriate legal counsel.		
Order demobilization of the incident when appropriate.		
Complete Final Spill Cleanup Report.		

The Information Officer, a member of the Command Staff, is responsible for developing and releasing information about the incident to the news media, to incident personnel and to other appropriate agencies and organizations.

Only one Information Officer will be assigned for each incident, including incidents operating within Unified Command or multi-jurisdictional incidents. The Information Officer may have assistants as necessary and the assistants may also represent assisting agencies or jurisdictions if warranted.

INFORMATION OFFICER	INITIALS	DATE & TIME
Review Common Responsibilities.		
Determine from the Incident Commander if there are any limits on information release.		
Develop material for use in media briefings.		
Obtain Incident Commander approval for 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 of the incident and provide information on the status of the incident to incident personnel.		

The Safety Officer, a member of the Command Staff, is responsible for monitoring and assessing hazardous and unsafe situations and developing measures for assuring personnel safety. The Safety Officer will correct unsafe acts or conditions through the regular line of authority, although the Officer may exercise emergency authority to stop or prevent unsafe acts when immediate actions is required. The Safety Officer maintains awareness of active and developing situations, ensures the preparation and implementation of the Site Safety Plan and includes safety messages in each Incident Action Plan.

SAFETY OFFICER	INITIALS	DATE & TIME
Review Common Responsibilities.		
Identify hazardous or unsafe situations associated with the incident by ensuring the performance of preliminary and continuous site characterization and analysis which shall include the identification of all actual or potential physical, biological and chemical hazards known or expected to be present on site.		
Participate in Planning Meetings to identify any health and safety concerns inherent in the operations daily workplan.		
Review the Incident Action Plan for safety implications.		
Exercise emergency authority to stop and prevent unsafe acts.		
Investigate accidents that have occurred within the incident areas.		
Ensure the preparation and implementation of the Site Specific Health and Safety Plan (HASP) in accordance with the Area Contingency Plan (ACP) and State and Federal OSHA regulations. The HASP shall at minimum address, include or contain the following elements: • Health and Safety hazard analysis for each site task or operation • Comprehensive operations work plan • Personnel training requirements • PPE selection criteria • Site specific occupational medical monitoring requirements • Air monitoring plan: area/personal • Site control measures • Confined space entry procedures ?only if needed? • Pre-entry briefings (tailgate meetings) initial and as needed • Pre-operations health and safety conference for all incident participants		

• Quality assurance of HASP effectiveness		
Assign assistants and manage the incident safety organization.		
Review and approve the Medical Plan.		

Incidents that are multi-jurisdiction, or have several agencies involved, may require the establishment of the Liaison Officer position on the Command Staff.

LIAISON OFFICER	INITIALS	DATE & TIME
Review Common Responsibilities.		
Provide a point of contact for assisting and cooperating Agency Representatives.		
Identify Agency Representatives from each agency including communications link and location.		
Maintain a list of assisting and coordinating interagency contacts.		
Assist in establishing and coordinating interagency contacts.		
Keep agencies supporting incident aware of incident status.		
Monitor incident operations to identify current or potential inter-organizational issues and advise Incident Commander as appropriate.		
Participate in Planning Meetings, provide current resource status information, including limitations and capabilities of assisting agency resources.		

The Technical Specialists are advisors with special skills needed to support the incident. Technical Specialists may be assigned anywhere in the ICS Organization. If necessary, Technical Specialists may be formed into a separate Unit. The Planning Section will maintain a list of available Specialists and will assign them where needed. The following are example positions for Technical Specialists that might be utilized during an oil spill response:

- Legal Specialists
- Scientific Support Coordinator Specialists
- Sampling Specialist
- Disposal (Waste Management) Specialists
- Alternative Response Technologies (ART) Specialist

The Legal Specialists will act in an advisory capacity during an oil spill response.

LEGAL OFFICER	INITIALS	DATE & TIME
Review Common Responsibilities.		
Participate in Planning Meetings if requested.		
Advise Unified Command on legal issues relating to in-situ burning,		

use of dispersants and other alternative response technology.		
Advise Unified Command on legal issues relating to Natural Resource Damage Assessment (NRDA).		
Advise Unified Command on legal issues relating to investigation.		
Advise Unified Command on legal issues relating to finance and claims.		
Advise Unified Command on response related issues.		

The Operations Section Chief, a member of the General Staff, is responsible for the management of all operations directly applicable to the primary mission. The Operations Section Chief activates and supervises elements in accordance with the Incident Action Plan and directs its execution; activates and executes the Site Safety Plan; directs the preparation of Unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander.

OPERATIONS SECTION CHIEF	INITIALS	DATE & TIME
Review Common Responsibilities.		
Develop operations portion of Incident Action Plan.		
Brief and assign operations personnel in accordance with Incident Action Plan.		
Supervise the execution of the Incident Action Plan for Operations.		
Request resources needed to implement the Operations tactics as part of the Incident Action Plan development (ICS 215).		
Ensure safe tactical operations.		
Make or approve expedient changes to the Incident Action Plan during operational period as necessary.		
Approve suggested list of resources to be released from assigned status (not released from the incident).		
Assemble and disassemble Strike Teams/Task Forces assigned to Operations Section.		
Report information about changes in the implementation of the IAP, special activities, events and occurrences to Incident Commander as well as to Planning Section Chief and Information Officer.		

The Planning Section Chief, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to:

- Understand the current situation
- Predict probable course of incident events
- Prepare alternative strategies for the incident

PLANNING SECTION CHIEF	INITIALS	DATE & TIME
Review Common Responsibilities.		
Activate Planning Section Units.		
Assign available personnel already on site to ICS organizational positions as appropriate.		
Collect and process situation information about the incident.		
Supervise preparation of the Incident Action Plan.		
Provide input to the Incident Command and Operations Sections Chief in preparing the Incident Action Plan.		
Participate in planning and other meetings as required.		
Establish information requirements and reporting schedules for all ICS organizational elements for use in preparing the Incident Action Plan.		
Determine need for any specialized resources in support of the incident.		
Provide Resources Unit with the Planning Section?s organizational structure including names and locations of assigned personnel.		
Assign Technical Specialists where needed.		
Assemble information on alternative strategies.		
Assemble and disassemble Strike Teams and Task Forces as necessary.		
Provide periodic predictions on incident potential.		
Compile and display Incident Status Summary information.		
Provide status reports to appropriate requesters.		
Advise General Staff of any significant changes in incident status.		
Incorporate the incident Traffic Plan (from Ground Support Unit), Vessel Routing Plan (from Vessel Support Unit) and other supporting plans into the Incident Action Plan.		
Instruct Planning Section Units in distribution and routing of incident information.		
Prepare recommendations for release of resources for submission to members of Incident Command.		
Maintain Section record.		

The Logistics Section Chief, a member of the General Staff, is responsible for providing facilities, services, material, etc. in support of the incident. The Logistics Section Chief participates in development and implementation of the Incident Action Plan and activates and supervises Branches and Units within the Logistics Section.

LOGISTICS SECTION CHIEF	INITIALS	DATE & TIME
Review Common Responsibilities.		

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

The **Finance Section Chief**, a member of the General Staff, is responsible for all financial and cost analysis aspects of the incident and for supervising members of the Finance Section.

FINANCE SECTION CHIEF	INITIALS	DATE & TIME
Review Common Responsibilities.		
Attend briefing with responsible agency to gather information.		
Attend Planning Meeting to gather information on overall strategy.		
Determine resource needs.		
Develop an operating plan for Finance function on incident.		
Prepare work objectives for subordinates, brief staff, making assignments and evaluate performance.		
Inform members of the Unified Command and General Staff when Section is fully operational.		
Meet with assisting and cooperating Agency Representatives as required.		
Provide input in all planning sessions on financial and cost analysis matters.		

Maintain daily contact with agency(s) administrative headquarters on finance matters.		
Ensure that all personnel time records transmitted to home agencies according to policy.		
Participate in all demobilizing planning.		
Ensure that all obligation documents initiated at the incident are properly prepared and completed.		
Brief agency administration personnel on all incident related business management issues needing attention and follow-up to leaving incident.		

SECTION 5 Last Revised: April 2008

INCIDENT PLANNING

5.1 DOCUMENTATION PROCEDURES

Documentation of a spill response provides a historical record, keeps management informed, serves as a legal instrument, and is a means to account for the clean-up costs.

Documentation should begin immediately upon spill notification and continue until termination of all operations. Documentation should include the following:

- Spill origin and characteristics
- Sampling surveys
- Photographic surveys
- Climatological data
- Labor and equipment accounting
- Copies of all logs, contracts, contacts, and plans prepared for incident

5.2 ICS FORMS

ICS compatible forms are also available on the EHS&T Portal. SF49-Emergency Response Site Safety and Action Plan is preferred and is NIMS/ICS 201/202/205/206/208/215/215A compatible.

The forms can be accessed at the following location:

EHS&T Portal Page/Emergency Response & Preparedness/Lists/Safety Forms.

- **INCIDENT BRIEFING FORM - ICS 201 (Initial Report Only)**

  For use by the Command Staff to gather information on the Spill Management Team?s efforts to implement applicable response plans. Prepared by the initial Incident Commander (IC) for providing documentation of the initial response.

- **OPERATIONAL PLANNING MEETING**

  Creates the blue print for tactical deployment during the next operational period.

  The following ICS forms can be used:

  - **OPERATIONAL PLANNING WORKSHEET - ICS 215**

    This form communicates to the Resources Unit the resources needed as a result of decisions made during the Tactics and Planning meetings.

  - **RADIO REQUIREMENTS WORKSHEET - ICS 216**

    Used to develop the total number of personal portable radios required for each Division/Group and Branch. It provides a listing of all units assigned to each

Division, and thus depicts the total incident radio needs.

- **RADIO FREQUENCY WORKSHEET - ICS 217**

  Used by the Communications Unit Leader to assist in determining frequency allocations.

- **INCIDENT ACTION PLAN**

For use by the Planning Section to plan each day?s response actions. This plan consists of the portions identified on the IAP cover page and must be approved by the Incident Commander, FOSC, and SOSC.

The IAP consists of the following ICS forms:

- **INCIDENT ACTION PLAN (IAP) COVER PAGE**

  For use in presenting initial information, signature approval, and table of contents of forms contained in the IAP.

- **INCIDENT OBJECTIVES - ICS 202**

  Describes the basic incident strategy, control objectives, and provides weather, tide and current information, and safety considerations for use during the next operational period.

5.2 ICS FORMS, CONTINUED

- **ORGANIZATION ASSIGNMENT LIST - ICS 203**

  Provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit.

- **ASSIGNMENT LIST - ICS 204**

  Submits assignments at the level of Division and Groups.

- **ASSIGNMENT LIST ATTACHMENT- ICS 204a**

  This form is an optional attachment, which can be used in conjunction with the Assignment List, ICS form 204-OS. The ICS 204-OS is used to give assignments to Divisions and Groups; the ICS form 204-a-OS provides more specific assignment information, when needed.

- **COMMUNICATIONS PLAN - 205**

  Is used to provide, in the location, information on all radio frequency assignments down to the Division/Group level for each operational period.

- **COMMUNICATIONS LIST - ICS 205a**

  This option form is used in conjunction with the Incident Radio Communications Plan, ICS form 205OS. ICS form 250a-OS, lists methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

- **MEDICAL PLAN - ICS 206**

  Provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

- **RESOURCES AT RISK - ICS 232**

  Provides information about sites in the incident area which are sensitive due to environmental, archaeo-cultural, or socio-economic resources at risk, and identifies incident-specific priorities and issues.

- **EXECUTIVE SUMMARY**

The Executive Summary communicates significant response issues during the current operational period, summarizing the daily activities for all sections in a brief format to Senior Managers, Administrators, Senior Agency Staff, and Civic Leaders.

- **INCIDENT STATUS SUMMARY - ICS 209**

  Used to inform personnel about the status of response efforts.

- **AIR OPERATIONS SUMMARY - ICS 220**

  Provides the Air Operations Branch with the number, type, location, and specific assignments of aircraft.

5.2 ICS FORMS, CONTINUED

- **MEETING SCHEDULE - ICS 230**

  Records information about the daily scheduled meeting activities.

- **MEETING SUMMARY - ICS 231**

  Provides more detailed information concerning the attendees and notes from a particular meeting.

- **GENERAL PLAN**

  Displays the progress and planned start and end dates for various incident response activities**.**

- **RESOURCE TRACKING**

- **STATUS CHANGE - ICS 210**

  Used to record status change information received on resources assigned to the incident.

- **CHECK-IN LIST EQUIPMENT - ICS 211e**

This form is used for equipment check-in-only. Equipment arriving at the incident can check in at various incident locations.

- **CHECK-IN LIST PERSONNEL - ICS 211p**

  This for is used for personnel check-in-only. Personnel arriving at the incident can be checked in at various incident locations.

- **SUPPORT VEHICLE INVENTORY - ICS 218**

  Provides an inventory of all transportation and support vehicles assigned to the incident.

- **T-CARDS - ICS 219**

  T-Cards are used by the Resources Unit to record status and location information on resources, transportation, and support vehicles and personnel.

- **DEMOBILIZATION CHECK-OUT - ICS 221**

  Form provides the Planning Section information on resource releases from the incident.

In addition, these Incident Command System (ICS) forms may be found on the U. S. Coast Guard web page: http://www.uscg.mil/pacarea/pm/icsforms/ics.htm.

1. Incident Name	2. Prepared By: (Name) Date: Time:	INCIDENT BRIEFING ICS 201-OS
3. Map / Sketch (Include maps drawn here or attached, showing the total area of operations, the incident site/area, overflight results, trajectories, impacted shorelines or other graphics depicting situational and response status)		

INCIDENT BRIEFING	March, 2000	ICS 201-OS (pg 1 of 4)

1. Incident Name	2. Prepared By: (Name) Date: Time:	INCIDENT BRIEFING ICS 201-OS
4. Initial Incident Objectives		

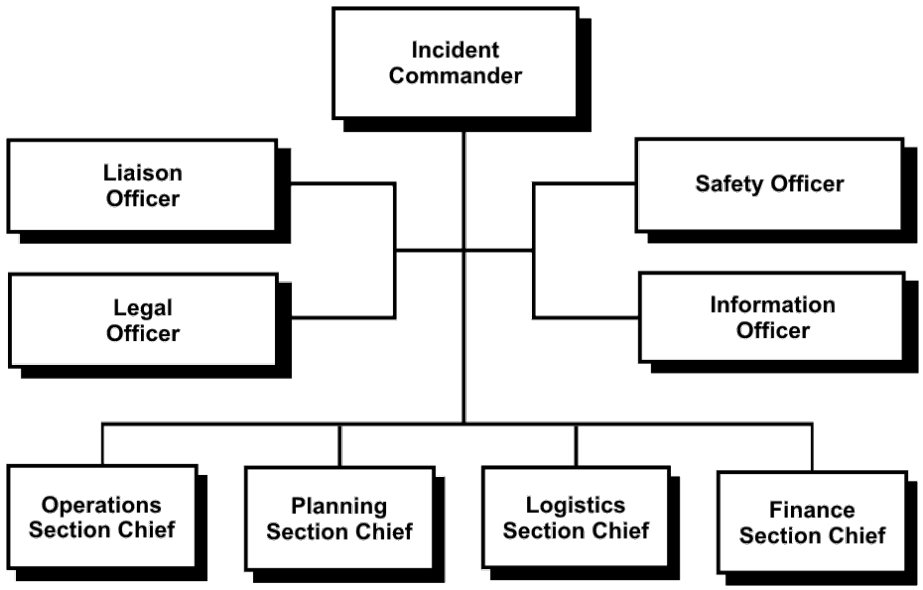
5. Summary of Current Actions

Time	Action/Note

INCIDENT BRIEFING	March, 2000	ICS 201-OS (pg 2 of 4)

1. Incident Name	2. Prepared By: (Name) Date: Time:	INCIDENT BRIEFING ICS 201-OS

6. Current Organization



INCIDENT BRIEFING	March, 2000	ICS 201-OS (pg 3 of 4)

1. Incident Name	2. Prepared By: (Name) Date: Time:	INCIDENT BRIEFING ICS 201-OS

7. Resources Summary

Resources Needed	Time Ordered	Resource Identifier	ETA	On Scene? (X)	Notes: (Location/Assignment/Status)

INCIDENT BRIEFING		March, 2000			ICS 201-OS (pg 4 of 4)

1. Incident Name		**2. Operational Period (Date/Time)** **From:**					OPERATIONAL PLANNING WORKSHEET ICS 215OS			
3. Division/ Group or Location	4. Work Assignments	5. Resource/Equipment					6. Notes/ Remarks	**7. Reporting Location**	**8. Requested Arrival Time**	9. "X" here if 204a Needed
		Resource								
		Req.								☐
		Have								
		Need								
		Req.								☐
		Have								
		Need								
		Req.								☐
		Have								

		Need								
		Req.								
		Have								☐
		Need								
		Req.								
		Have								☐
		Need								
		Req.								
		Have								☐
		Need								
		Req.								
		Have								☐
		Need								
		Req.								
		Have								☐
		Need								
		10. Total Resources Required								
		11. Total Resources On Hand								
		12. Total Resources Needed								
13. Prepared By:							Date:		Time:	
OPERATIONAL PLANNING WORKSHEET							June, 2000			ICS 215OS

RADIO REQUIREMENTS WORKSHEET			1. Incident Name			2. Date			3. Time		
4. Branch			5. Agency			6. Operational Period			7. Tactical Frequency		
8. Division/Group Agency			Division/Group Agency			Division/Group Agency			Division/Group Agency		
9. Agency	ID NO.	Radio Rqmts.	Agency	ID NO.	Radio Rqmts.	Agency	ID NO.	Radio Rqmts.	Agency	ID NO.	Radio Rqmts.

216 ICS 3-82			Page			10. Prepared By: (Communication Unit)					

1. INCIDENT NAME	2. DATE	3. OPERATIONAL PERIOD (DATE/TIME)	**RADIO FREQUENCY ASSIGNMENT WORKSHEET ICS 217**

4. INCIDENT ORGANIZATION

	SOURCE	FUNCTION	CH#	FREQUENCY	TOTAL BY REQ.
INCIDENT COMMANDER					
SAFETY OFFICER					

OPERATIONS SECTION CHIEF					
AIR OPERATIONS					
AIR TACTICAL SUPERVISOR					
PLANNING SECTION CHIEF					
GROUND SUPPORT UNIT					
BASE UNIT					
COM CENTER					

BRANCH					
DIVISION					
DIVISION					
BRANCH					
DIVISION					
DIVISION					
BRANCH					
DIVISION					
DIVISION					

5. RADIO DATA				6. AGENCY				
ID								

ICS 217	Page	7. Prepared By:

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

	From:	To:	

3. Approved By:

FOSC

SOSC

IC

INCIDENT ACTION PLAN

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

- ☐ ICS 202-OS (Response Objectives)
- ☐ ICS 203-OS (Organization List)
- ☐ ICS 204-OS (Assignment Lists)
- ☐ ICS 204a-OS (Assignment Lists Attachment)
- ☐ ICS 205OS (Communications Plan)
- ☐ ICS 205a-OS (Communications List)
- ☐ ICS 206-OS (Medical Plan)
- ☐ ICS 232-OS (Resources at Risk)
- ☐
- ☐
- ☐
- ☐

4. Prepared By: (Planning Section Chief)	Date/Time

IAP COVER SHEET March, 2000

1. Incident Name	2. Operational Period (Date/Time) **From:** **To:**	INCIDENT OBJECTIVES ICS 202-OS

3. Overall Incident Objective(s)
4. Objectives for Specified Operational Period
5. Safety Message for Specified Operational Period Approved Site Safety Plan Located at:
6. Weather: See Attached Weather Sheet
7. Tides/Currents: See Attached Tide/Current Data

8. Time of Sunrise:	Time of Sunset:

9. Attachments: (check if attached)

☐ Organization List (ICS 203-OS) ☐ Assignment List (ICS 204-OS) ☐ Communications Plan (ICS 205OS)

☐ Medical Plan (ICS 206-OS) ☐ Weather

10. Prepared By: (Planning Section Chief)	Date/Time

INCIDENT OBJECTIVES March, 2000 ICS 202-OS

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

3. Incident Commander and Staff

	Primary	Deputy
Federal:		
State:		

7. Operations Section

Chief	
Deputy	
a. Branch I - Division/Groups	

IC:

Safety Officer :

Information Officer:

Liaison Officer:

4. Agency Representatives

Agency	Name

5. Planning Section

Chief
Deputy
Resources Unit
Situation Unit
Environmental Unit
Documentation Unit
Demobilization Unit
Technical Specialists

6. Logistics Section

Chief
Deputy
Time Unit
Procurement Unit
Compensation Unit
Cost Unit

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

Branch Director
Deputy
Division / Group
Division / Group
Division / Group
Division / Group
Division / Group

b. Branch II - Division/Groups

Branch Director
Deputy
Division / Group
Division / Group
Division / Group
Division / Group
Division / Group

c. Branch III - Division/Groups

Branch Director
Deputy
Division / Group
Division / Group
Division / Group
Division / Group
Division / Group

d. Air Operations Branch

Air Operations Br. Dir.
Air Tactical Supervisor
Air Support Supervisor
Helicopter Coordinator
Fixed-wing Coordinator

8. Finance Section

Chief
Deputy
Time Unit
Procurement Unit
Compensation Unit
Cost Unit

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

ORGANIZATION ASSIGNMENT LIST	March, 2000	ICS 203-OS

1. Incident Name	2. Operational Period (Date/Time) From: To :	ASSIGNMENT LIST ICS 204-OS

3. Branch	4. Division/Group

5. Operations Personnel	Name	Affiliation	Contact # (s)
Operations Section Chief:			
Branch Director:			
Division/Group Supervisor:			

6. Resources Assigned This Period	**?X? indicates 204a attachment with special instructions**			
Strike Team/Task Force/ Resource Identifier	**Leader**	**Contact Info. #**	**# of Persons**	**Notes/Remarks**

7. Assignments

8. Special Instruction for Division/Group

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

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

Emergency Communications

Medical:	Evacuation:	Other:	
10. Prepared By: (Resources Unit Leader)	**Date/Time**	**11. Approved By:** (Planning Section Chief)	**Date/Time**
ASSIGNMENT LIST	June, 2000		ISC 204-OS

1. Incident Name	2. Operational Period (Date/Time) From:	ASSIGNMENT LIST ATTACHMENT ICS 204a-OS
3. Branch	4. Division/Group	
5. Strike Team/Task Force/ Resource Identifier	6. Leader	7. Assignment Location
8. Work Assignment Special Instructions (if any)		[Ops]
9. Special Equipment/Supplies Needed for Assignment (if any)		[Ops]
10. Special Environmental Considerations (if any)		[P.S.C.]
11. Special Site-Specific Safety Considerations (if any)		[S.O.]
12. Other Attachments (as needed)		

☐ Map	☐ Shoreline Cleanup Assessment Team Report	☐
☐ Weather Forecast	☐ Tides	☐

13. Prepared By: (Resources Unit Leader)	Date/Time

ASSIGNMENT LIST ATTACHMENT June, 2000 ICS 204a-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	COMMUNICATIONS PLAN ICS 205OS

3. Basic Radio Channel Use

System / Cache	Channel	Function	Frequency	Assignment	Remarks

4. Prepared By: (Communications Unit)	Date/Time

COMMUNICATIONS PLAN March, 2000 ICS 205OS

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

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
COMMUNICATIONS LIST	June, 2000	ICS 205a-OS

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

3. Medical Aid Stations

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

4. Transportation

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

5. Hospitals

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

6. Special Medical Emergency Procedures

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

MEDICAL PLAN March, 2000 ICS 206-OS

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

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 June, 2000 ICS 232-OS

1. Incident Name	2. Operational Period (Date/Time) From: To:	EXECUTIVE SUMMARY

3. Operations:

4. Environmental:
5. Planning:
6. Other:
Prepared By: (Situation Unit Leader) Date/Time
EXECUTIVE SUMMARY June, 2000

1. Incident Name	2. Period Covered By Report From: To:	Time of Report	INCIDENT STATUS SUMMARY ICS 209-OS

3. Spill Status (Estimated, in Barrels)			**[OPS/EUL/SSC]**
Source Status:	Remaining Potential (bbl):		
	Rate of Spillage (bbl/hr):		
Secured	☐	Unsecured	☐

7. Safety Status	[Safety Officer]
Since Last Report	Total
Responder Injury	
Public Injury	

Volume Spilled	Since Last Report	Total
Mass Balance/Oil Budget		
Recovered Oil		
Evaporation		
Natural Dispersion		
Chemical Dispersion		
Burned		
Floating, Contained		
Floating, Uncontained		
Onshore		
Total Spilled Oil Accounted For:		

4. Waste Management (Estimated)			[OPS/Disposal]
	Recovered	**Stored**	**Disposed**
Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

5. Shoreline Impacts (Estimated, in miles)			**[PSC/EUL/SSC]**
Degree of Oiling	**Affected**	**Cleaned**	**To Be Cleaned**
Light			
Medium			
Heavy			
Total			

6. Wildlife Impacts						[OPS/Wildlife Br.]
Numbers in ( ) indicate subtotal that are threatened / endangered species.						Died in Facility
	Captured	**Cleaned**	**Released**	**DOA**	**Euth.**	**Other**
Birds						
Mammals						
Reptiles						
Fish						
Total						

8. Equipment Resources				[RUL]
Description	**Ordered**	**Available / Staged**	**Assigned**	**Out of Service**
Spill Resp. Vsls				
Fishing Vessels				
Tugs				
Barges				
Other Vessels				
Skimmers				
Boom (ft.)				
Sbnt/Snr Bm. (ft.)				
Vacuum Trucks				
Helicopters				
Fixed Wing				

9. Personnel Resources			[RUL]
Description	**People in Cmd. Post**	**People in the Field**	**Total People On Scene**
Federal			
State			
Local			
RP			
Contract Personnel			
Volunteers			
Total Response Personnel From All Organizations:			

10. Special Notes

11. Prepared By: (Situation Unit Leader) Date/Time

1. Incident Name	2. Operational Period (Date/Time) From: To:	AIR OPERATIONS SUMMARY ICS 220-OS

3. Distribution	
☐ Fixed-Wing Bases	☐ Helibase

4. Personnel and Communications				
	Air Operations Director	Air/ Air Frequency	Air/ Ground Frequency	5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)
Air Operations Director				
Air Tactical Supervisor				
Air Support Supervisor				
Helicopter Coordinator				
Fixed-Wing Coordinator				

6. Location/ Function	7. Assignment	8. Fixed Width		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		

	13. Totals								

14. Air Operation Support Equipment	15. Prepared By:	Date/Time

1. Incident Name	2. Operational Period (Date/Time) From: To:	DAILY MEETING SCHEDULE ICS 230-OS

3. Meeting Schedule (Commonly-held meetings are included)

Date/Time	Meeting Name	Purpose	Attendees	Location
	Tactics Meeting	Develop primary and alternate Strategies to meet Incident Objectives for the next operational period.	PSC, OPS, LSC, EUL, RUL & SUL	
	Planning Meeting	Review status and finalize strategies and assignments to meet incident objectives for the next operational period.	Determined by the IC / UC	
			IC / US,	

	Operations Briefing	Present IAP and assignments to the Supervisors/Leaders for the next operational period.	Command Staff, General Staff, Branch Directors, Div. Sups., Task Force / Strike Team Leaders and Unit Leaders	
	Unified Command Objectives Meeting	Review/identify objectives for the next operational period.	Unified Command members	
4. Prepared By: (Situation Unit Leader)			Date/Time:	
DAILY MEETING SCHEDULE		March, 2000		ICS 230-OS

1. Incident Name	2. Meeting Date/Time	MEETING SUMMARY ICS 231-OS
3. Meeting Name		
4. Meeting Location		
5. Facilitator		
6. Attendees		

7. Notes (with summary of decisions and action items)
8. Prepared By: Date/Time
MEETING SUMMARY March, 2000 ICS 231-OS

1. Incident Name		**GENERAL PLAN**
2. Prepared By	**Date/Time Prepared**	3. Operational Period (Date/Time) From: To:
4. Notification (Date and time completed)		**5. Response Initiation (Date and time completed)**
6. Plan Item	Timeframe== > (Enter days or weeks)	
Site Characterization, Forecasts, and Analysis		
Site Safety		
Site Security		
Source Stabilization, Salvage, and Lightering		
Surveillance		

On Water Containment and Recovery																						
Sensitive Areas/Resources at Risk																						
Alternative Response Technology																						
Shoreline Protection and Recovery																						
Wildlife Protection and Rehabilitation																						
Logistics Support																						
Response Organization																						
Communications																						
Public Information																						
Financial Management and Cost Documentation																						
NRDA and Claims																						
Training																						
Information Management																						
Restoration/Mitigation																						
Waste Management																						
Demobilization																						

1. Incident Name	2. Operational Period (Date/Time) From: To:	STATUS CHANGE ICS 210-S
3. Personnel/Resource Name or I.D.		
4. New Status ☐ Available/Staged ☐ Assigned ☐ Out of Service		
5. From: Location or Status	6. To: Location or Status	

7. Time of Location/Status Change
8. Comments

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

STATUS CHANGE June, 2000 ICS 210-OS

1. Incident Name	**2. Operational Period (Date/Time)**		**3. Check-In Location**		**CHECK-IN LIST (Equipment)**
			☐ Command Post	☐ Other	
	From:	**To:**	☐ Staging Area		**ICS 211e-OS**
Equipment Check-In Information			**9. Initial Incident Check-In?**		**10. Time**

4. Equipment Description	**5. Equipment Identifier**	**6. Supplier/ Owner**	**7. Assignment**	**8. Contact Information**	Y/N	In	Out
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐

					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
					☐	☐	☐
11. Prepared By:		**Date/Time**		**12. Date/Time Sent to Resource Unit**			

CHECK-IN LIST (Equipment) March, 2000 ICS 211e-OS

1. Incident Name	**2. Operational Period (Date / Time)**		**3. Check-In Location**		**CHECK-IN LIST (Personnel)**
			☐ Command Post	☐ Other	
	From:	**To:**	☐ Staging Area		**ICS 211p-OS**

Personnel Check-In Information				**8. Initial Incident Check-In?**		**9. Time**
4. Name	**5. Company/Agency**	**6. ICS Section/Assignment/Quals.**	**7. Contact Information**	Y/N	In	Out

10. Prepared by	Date / Time	11. Date / Time Sent to Resource Unit

CHECK-IN LIST (Personnel) March, 2000 ICS 211p-OS

(USE SEPARATE SHEET FOR EACH VEHICLE CATEGORY)	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED

VEHICLE INFORMATION

a. TYPE	b. MAKE	c. CAPACITY/SIZE	d. AGENCY/OWNER	e. ID. NO.	f. LOCATION	g. RELEASE TIME

218 ICS 8-78	**PAGE**	5. PREPARED BY: (GROUP SUPPORT UNIT)

T-CARD ICS 219-OS

AGENCY	TYPE	MANUFACTURER NAME/NO.	ID. NO.

ORDER/REQUEST NO.	DATE/TIME CHECK IN
HOME BASE	
DEPARTURE POINT	
PILOT NAME	
DESTINATION POINT	ETA

AGENCY	TYPE	MANUFACTURER	ID. NO.

INCIDENT LOCATION	TIME
STATUS ETR	
NOTE	
INCIDENT LOCATION	TIME
STATUS	

REMARKS	
INCIDENT LOCATION	TIME
STATUS ETR	
NOTE	
INCIDENT LOCATION	TIME
STATUS ETR	
NOTE	

ETR	
NOTE	
INCIDENT LOCATION	TIME
STATUS ETR	
NOTE	
INCIDENT LOCATION	TIME
STATUS ETR	
NOTE	

1. Incident Name	2. Operational Period (Date / Time)		DEMOB. CHECK-OUT ICS 221-OS
	From:	To:	

3. Unit / Personnel Released	4. Release Date / Time

5. Unit / Personnel	
You and your resources have been released, subject to signoff from the following: Demobilization Unit Leader; "X" appropriate box (es)	
Logistics Section	
☐ Supply Unit	
☐ Communications Unit	
☐ Facilities Unit	
☐ Ground Unit	
Planning Section	
☐ Documentation Unit	
Finance / Admin. Section	

☐ Time Unit	
Other	
☐	
☐	
☐	

6. Remarks

7. Prepared By:	**Date / Time**

DEMOB. CHECK-OUT	June, 2000	ICS 221-OS

5.3 SITE SAFETY AND HEALTH PLAN

PLAN REVIEW:		
Incident Safety Officer:		
APPROVALS:		
Incident Commander:		
Operations Officer:		
Haz Mat Division Officer:		
PLAN PREPARED:	DATE:	TIME:
Incident Location:		
Incident Number:		
HAZARDOUS SITUATION:	(Known or suspected, contaminated media, type storage container, type occupancy, obvious leaks, spills or breaches, physical damage)	

RESPONDING AGENCIES:	
Agency:	Name:
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

All government and contractor personnel who enter the exclusion zones or use air purifying respirators must be enrolled in a medical monitoring program.

GENERAL SAFETY RULES AND EQUIPMENT:

1. There will be no eating, drinking, or smoking in the exclusion zone or the contamination reduction zone.

2. All personnel must pass through the contamination reduction zone to enter or exit the exclusion zone (hot zone).
3. As a minimum, Decontamination Team members must be in one (1) level of protection lower than that of the entry teams.
4. All decontamination equipment and systems must be in place before an entry can be made.
5. Entry team will consist of a minimum of two members with the same number of personnel assigned to a backup team. All entry personnel will adhere to the buddy system.
6. At the end of the incident, or directly after a possible exposure, each entry team member will take a full body shower and launder any personal clothing used at the scene.
7. All breathing air shall be certified as Grade D or better.
8. Where practical, all tools shall be of the nonsparking type.
9. Fire equipment shall be on hand when the situation warrants such support. At a minimum, fire extinguishers shall be available on scene.
10. Since incident evacuation may be necessary if an explosion, fire, or other event occurs; an individual shall be assigned to sound, alert, and notify the responsible command personnel and public officials (if required). The evacuation signal shall be four short blasts on an air horn every 30 seconds until all personnel are known to be evacuated.

11. An adequately stocked Emergency Medical Services (EMS) Unit shall be on site at all times.

12. The location and telephone number of the nearest medical facility shall be posted and known to all personnel.

GENERAL SAFETY BRIEFING:

Before any incident actions are taken, a briefing from the Command Staff will be accomplished with all personnel present. Personnel will sign a log sheet, attesting to being present at the briefing. Topics discussed should include known and suspected hazards along with the operation's goals and objectives.

EMERGENCY ACTION CONDITIONS:

Code Green All conditions are normal and incident work may continue.

Code Red All or specific work activities must cease at once due to one of the following:

- Indications of emissions from the incident such as CGI readings of 25% or greater, less than 19.5% oxygen, or one Mr/Hr of ionizing radiation are present
- Current or projected meteorological data indicates that a probable impact on working conditions could occur
- If background readings obtained during cessation of activities worsen, reassessment of the findings should be confirmed; actions to lower levels of contaminant or contingencies for further incident monitoring must take place

- If this condition exists, incident personnel will immediately notify command staff

Officials making evacuation/public health decisions will address the need for a public health advisory to potentially effected areas. This is because incident control methods may or may not reduce the source of contamination or threat to the general public.

If needed, a temporary sheltering or evacuation plan should be considered until levels of contamination are reduced or contained to levels deemed safe by all responsible authorities. Confirmation of these levels will be done by generally approved monitoring methods agreed to by the authorities in charge.

SHELTERING/EVACUATION PLAN:
ORDERED BY:

LIST OF ACCESS AUTHORIZED PERSONNEL (Outside Agencies):

SPECIALIZED TASK ASSIGNMENTS:

LEVELS OF PROTECTION SELECTED:				
Initial Site Survey:	A	B	C	D
Entry Team:	A	B	C	D
Backup Team:	A	B	C	D
Decon Team:	A	B	C	D

SKETCH OR ATTACH PLOT PLAN HERE:

RESPONSE SAFETY CHECK-OFF SHEET

TYPE OF RESPONSE:	
Highway	Industrial
Railway	Marine
Residential	Other
Specify:	
TYPE OF SAFETY PLAN:	
Federal	State
Local	Other
Specify:	
SUSPECTED CHEMICALS INVOLVED:	
1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
INITIAL LEVEL OF PROTECTION: (If level D you must justify)	
A B C D	

INITIAL MEDICAL SCREENING COMPLETE: ☐ Yes ☐ No
If no, justify:
In the event of fire or explosion:
In the event of potential or actual ionizing radiation exposure:

In the event of spread of contamination beyond the boundaries of the incident:
EMERGENCY SERVICES:
Emergency medical facility:
Ambulance service:
Poison Control Center:
Chemical manufacturer?s representative:
EMERGENCY PROCEDURES (in the event of personnel exposure):
EMERGENCY PROCEDURES (in the event of personnel injury):

HAZARD ASSESSMENT:
Attach Hazardous Materials Safety Data Sheets (MSDS), or other reference materials, for chemicals involved to this document.
MONITORING PROCEDURES:
Monitoring the incident to identify concentration of contaminants in all media. List the instruments to be used and what areas to be monitored.
Hot Zone (Exclusion Zone):
Warm Zone (Contamination Reduction Zone):
Cold Zone (Support Zone):

MEDICAL MONITORING: (What procedures to be used to monitor personnel for evidence of personal exposure.)
PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS MATERIALS:

NAME	POSITION	DATE/TIME

DECONTAMINATION PROCEDURES: (Contaminated personnel, surfaces, materials, instruments, other equipment.)

DECONTAMINATION SOLUTIONS USED:
DISPOSAL PROCEDURES:
AUTHORIZED BY:

POST RESPONSE:			
Level of protection used:			
A	B	C	D
Justify:			
EQUIPMENT DECONTAMINATION:			

	Clothing	SCBA/Resp.	Monitoring
Disposed:			
Cleaned:			
No Action:			

Specify:		
TOTAL APPROXIMATE TIME IN HOT ZONE:	Days	Hours

DATE PREPARED:	PREPARED BY:
REVIEWED BY:	
Assistance in preparing this safety plan can be obtained from Haz Mat personnel.	

HEALTH AND SAFETY/RESPONSE PLAN

APPLIES TO SITE:					
DATE:					
PRODUCTS:					(ATTACH MSDS)
SITE CHARACTERIZATION:		☐ Marine vessel	☐ Pipeline	☐ Storage facility	
		☐ Truck/Rail car	☐ Other		
Water	☐ Shoreline	☐ Wetlands	☐ Other		
	☐ Rocky	☐ Sandy	☐ Muddy	☐ Other	
	☐ River	☐ Creek	☐ Canal	☐ Bay	☐ Ocean
Land	☐ Mountains	☐ Hills	☐ Brushland	☐ Forest	☐ Grassland
	☐ Other				
Use	☐ Public	☐ Government	☐ Residential	☐ Commercial	
	☐ Recreational	☐ Industrial	☐ Farmland	☐ Other	
Weather	☐ Temp _____?F	☐ Wind/Dir. _____ mph		☐ Rain	
	☐ Snow	☐ Ice		☐ Other	
Pathways for Dispersion		☐ Air	☐ Water	☐ Land	☐ Other

Site Hazards

☐ Chemical Hazards	☐ Boats
☐ Slips, trips, falls	☐ Helicopters
☐ Heat stress	☐ Noise
☐ Cold stress	☐ Pumps, hoses
☐ Weather	☐ Steam, hot water
☐ Drowning	☐ Fire/Explosion
☐ Heavy equipment	☐ Poor visibility
☐ Drum handling	☐ Motor vehicles
☐ Wildlife/plants	☐ Confined spaces (see attachment/appendix)
☐ Hand/power tools	☐ Ionizing radiation
☐ Lifting	☐ Other

Air Monitoring			
% LEL	% O_2	PPM Benzene	PPM H_2S
☐ Other (specify)			
☐ See attachment - Monitoring Results/Methods			

CONTROL MEASURES:

Engineering Controls

☐ Source of release secured ☐ Valve(s) closed ☐ Facility shut down
☐ Site secured
☐ Other

Personal Protective Equipment (PPE) HAZWOPER Coordination with OSRO

☐ PVC suits ☐ PE/TYVEK suits ☐ Respirator
☐ Site secured ☐ PVC gloves ☐ Other
☐ Other ☐ Hard hats ☐ Eye protection

HEALTH AND SAFETY/RESPONSE PLAN

CONTROL MEASURES (cont'd):

Decontamination

☐ Stations established (see site map)

Sanitation

☐ Facilities provided per OSHA 1910.120(n)

Illumination

☐ Facilities provided per OSHA 1910.120(m)

Medical Surveillance

☐ Facilities provided per OSHA 1910.120(f)

WORK PLAN: (buddy system must be used.)

☐ Booming ☐ Skimmers ☐ Vac. trucks ☐ Pumping ☐ Excavation
☐ Heavy equipment ☐ Sorbent pads ☐ Patching ☐ Hot work ☐ Shoring
☐ Appropriate permits issued
☐ Other (describe):

TRAINING (HAZWOPER training program):

☐ Verified site workers trained per OSHA 1910.120

ORGANIZATION (See Incident Command System chart.):

EMERGENCY PLAN (See site map and Daily Medical Plan - ICS 206.):

SITE SECURITY:

- ☐ Pre-entry briefing
- ☐ Security level Low Medium High
- ☐ Other topics

DATE/TIME/PLAN COMPLETED: By:

SITE DIAGRAM

GENERAL DIAGRAM INSTRUCTIONS

1. Site Diagram should include the following:

    a. Sketch with major feature locations (buildings, drainage paths, roads, etc.)
    b. Hazardous substance location
    c. Work zones (exclusion, contamination reduction, support)
    d. Command center and decontamination area
    e. Access and access restrictions
    f. Routes of entry
    g. Wind direction
    h. Emergency evacuation routes
    i. Assembly points
    j. First aid locations
    k. Communication system

5.4 DECONTAMINATION PLAN

Incident Name:	Location:
Effective Date of Plan:	Effective Time Period of Plan:
Spill Location:	Plan Prepared By:

- Work Zones:

    - Support (cold) zone
    - Contamination reduction (warm) zone
    - Exclusion (hot) zone

    These zones are identified by signs, barrier tape or other means. Decontamination is performed in the contamination reduction zone. When responders exit the exclusion zone they must be decontaminated.

    Crews are available to assist in decontamination procedures as needed. The crews must wear appropriate personal protective equipment (PPE), and are responsible for packaging and labeling of contaminated PPE.

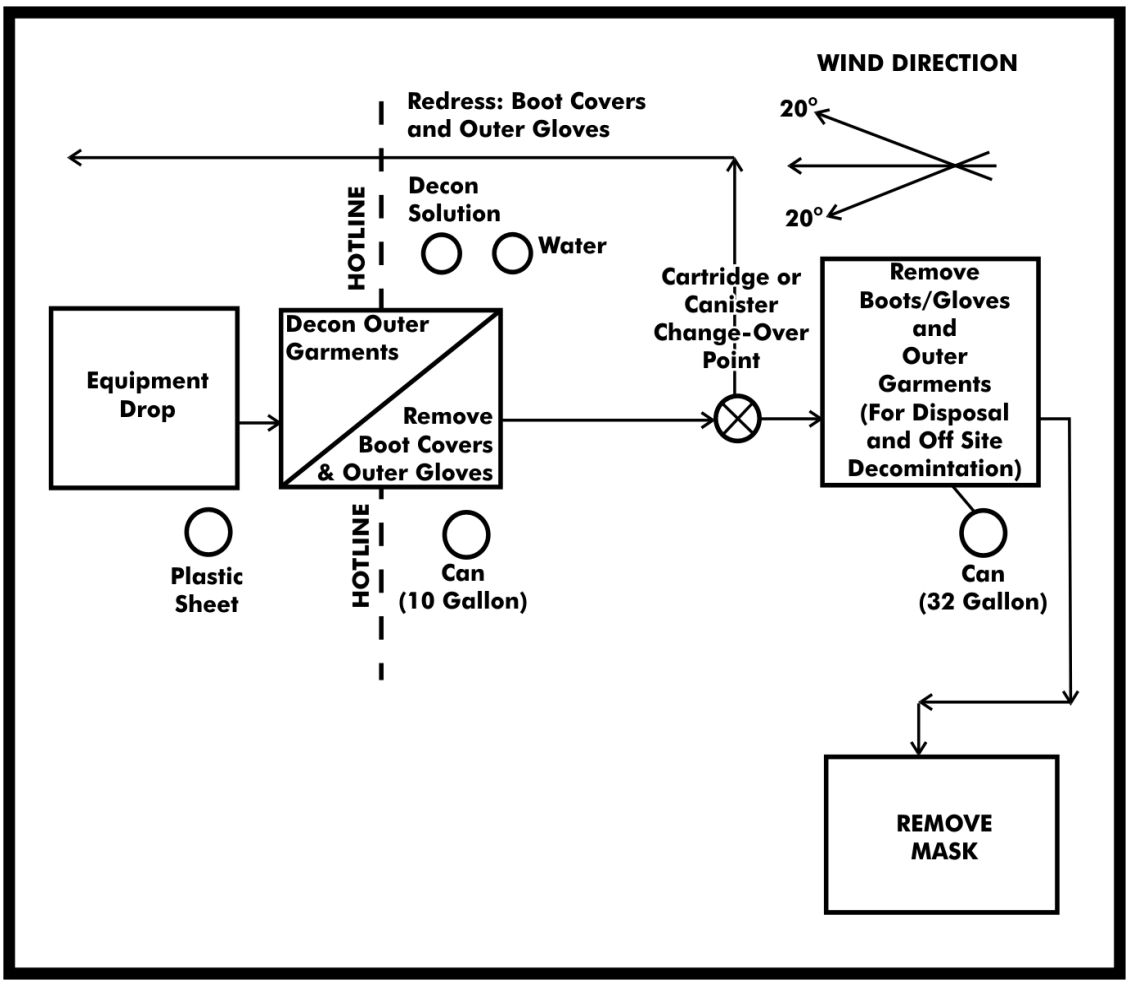
- Decontamination Stations:

    Decontamination is performed within the contamination reduction zone, which is appropriately lined to prevent the spread of contaminants. Dikes are installed under the lining to contain runoff.

MINIMUM MEASURES FOR DECONTAMINATION		
STATION 1	Equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool down station may be set up within this area.
STATION 2	Outer garment, boots	Scrub outer boots, outer gloves, and splash suit

	and gloves wash, and rinse	with decontamination solution or detergent and water. Rinse off using copious amounts of water.
STATION 3	Outer boot and glove removal	Remove outer boots and gloves. Deposit in container with plastic liner.
STATION 4	Canister or mask change	If worker leaves exclusion zone to change canister (or mask) or this is the last step in the decontamination procedures; worker's canister is exchanged, new outer gloves and boot covers are donned, joints are taped, the worker returns to duty.
STATION 5	Boot, gloves, and outer garment removal	Boots, chemical-resistant splash suit, inner gloves removed and deposited in separate containers lined with plastic.
STATION 6	Face piece removal	Face piece is removed. Avoid touching face with fingers. Face piece deposited on plastic sheet.
STATION 7	Field wash	Hands and face are thoroughly washed. Shower as soon as possible.

DECONTAMINATION PROCEDURES, MINIMUM DECONTAMINATION LAYOUT

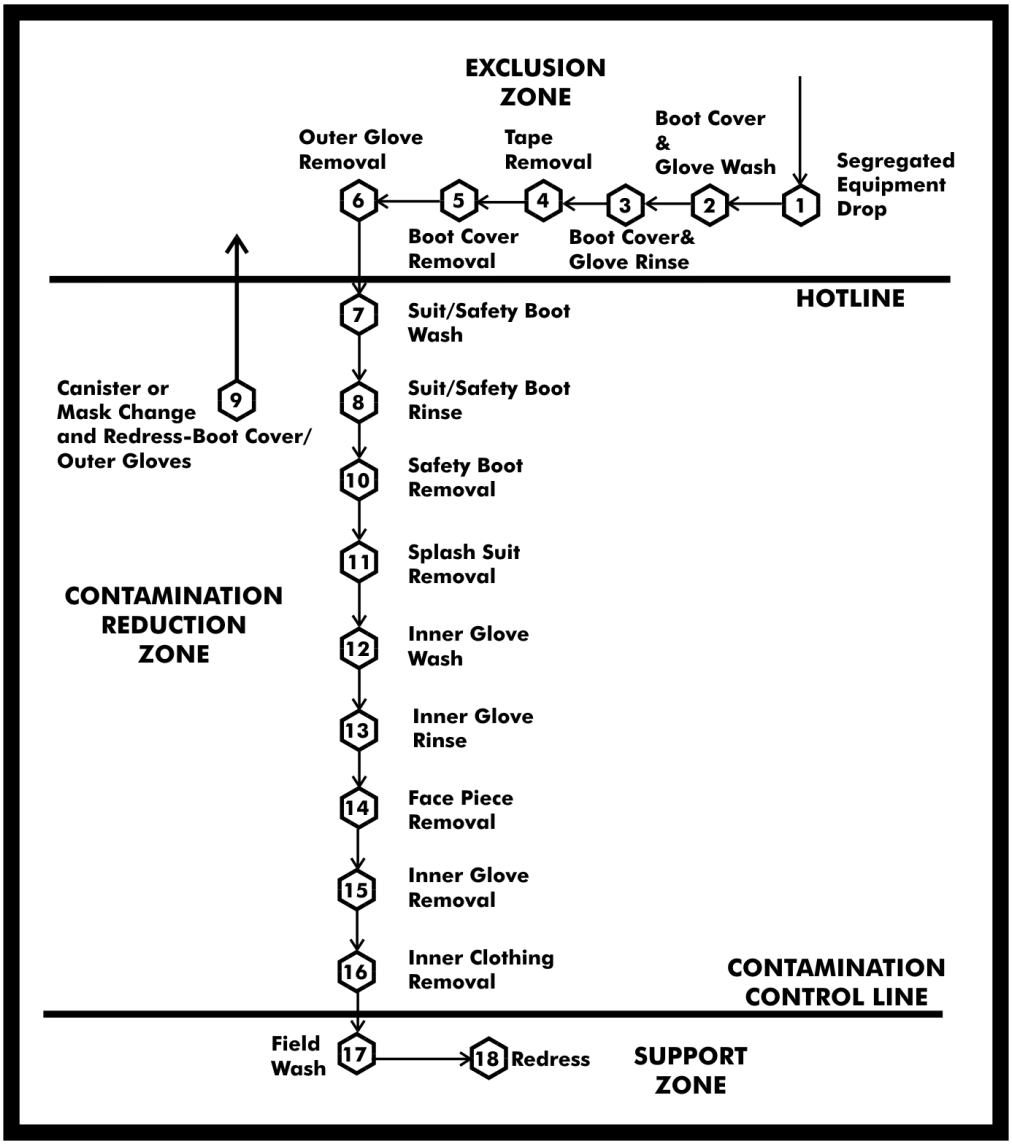


Procedures for these stations are as follows:

MAXIMUM MEASURES FOR DECONTAMINATION		
STATION 1	Segregated equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths or in different containers with plastic liners. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, a cool down station may be set up within this area.
STATION 2	Boot cover and glove wash	Scrub outer boot cover and gloves with decontamination solution or detergent and water.
STATION 3	Boot cover and glove rinse	Rinse off decontamination solution from Station 2 using copious amounts of water.
STATION 4	Tape removal	Remove tape around boots and gloves and deposit in container with plastic liner.
STATION 5	Boot cover removal	Remove boot covers and deposit in containers with plastic liner.
STATION 6	Outer glove removal	Remove outer gloves and deposit in container with plastic liner.
STATION 7	Suit and boot wash	Wash splash suit, gloves, and safety boots. Scrub with long-handled scrub brush and decontamination solution.
STATION 8	Suit and boot and glove rinse	Rinse off decontamination solution using water. Repeat as many times as necessary.
STATION 9	Canister or mask change	If worker leaves exclusion zone to change canister or this is the last step in the decontamination procedure; worker?s canister is exchanged, new outer gloves and boot covers are donned, joints are taped, and the worker returns to duty.
STATION 10	Safety boot removal	Remove safety boots and deposit in container with plastic liner.
STATION 11	Splash suit removal	With assistance of helper, remove splash suit. Deposit in container with plastic liner.
STATION 12	Inner glove wash	Wash inner gloves with decontamination solution.
STATION 13	Inner glove rinse	Rinse inner gloves with water.
STATION 14	Face piece removal	Remove face piece. Deposit in container with plastic liner. Avoid touching face with fingers.
STATION 15	Inner glove removal	Remove inner gloves and deposit in lined container.
STATION 16	Inner clothing removal	Remove clothing soaked with perspiration and place in lined container. Do not wear inner clothing off-site since there is a possibility that small amounts of contamination might have been transferred in removing the protective suit.
STATION 17	Field wash	Shower if highly toxic, skin-corrosive or skin-

		absorbable materials are known or suspected to be present. Wash hands and face if shower is not available.
STATION 18	Re-dress	Put on clean clothes.

DECONTAMINATION PROCEDURES, MAXIMUM DECONTAMINATION LAYOUT



5.5 DISPOSAL PLAN

Date:	Location:
Source of release:	
Amount of release:	
Incident name:	

State On-Scene Coordinator:
Federal On-Scene Coordinator:
Time required for temporary storage:
Proposed storage method:

Disposal priorities:

Sample date:	Sample ID:
Analysis required (type):	
Laboratory performing analysis:	

Disposal options:

	Available	Likely	Possible	Unlikely
Landfill:				
In situ/ bio-remediation:				
In situ burn:				
Pit burning:				
Hydrocyclone:				
Off site incineration:				
Reclaim:				
Recycle:				

Resources required for disposal options:

General information:

Generator name:	US EPA ID#:
Waste properties:	Waste name:
US EPA waste code:	State waste code:
EPA hazardous waste:	
Waste storage and transportation:	
Proposed storage method:	
Proposed transportation method:	

Permits required for storage:

Permits required for transportation:
Estimated storage capacity:
Number and type of storage required:
Local storage available for temporary storage of recovered oil:

PPE required for waste handling:	
Waste Coordinator:	Date:

Resources required for disposal options:

Incident name:	
Sample number:	Date sent:
Source of sample:	
Date sample data received:	
Waste hazardous:	Non-hazardous:
Permits/variances requested:	
Approval received on waste profile:	
Date disposal can begin:	
Disposal facilities:	
Profile number:	
Storage contractors:	
Waste transporters:	
PPE designated and agrees with Site Safety and Health Plan:	

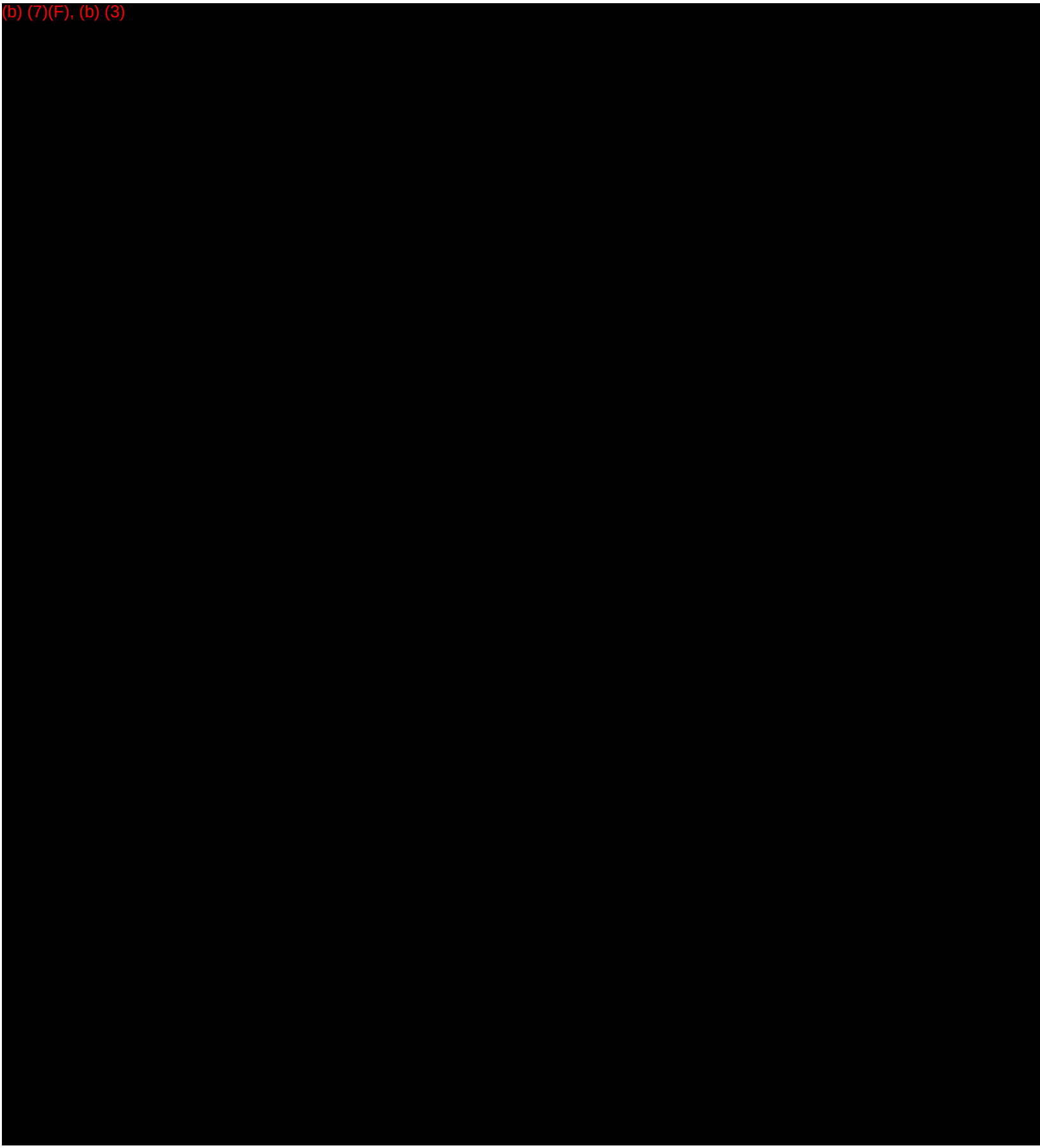
Additional information:
Waste Coordinator:

5.6 INCIDENT SECURITY PLAN

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)



5.7 DEMOBILIZATION PLAN

Incident name:	Location:
Effective date of plan:	Effective time period of plan:
Spill location:	Plan prepared by:

Demobilization procedures:

- Operations Section will determine which resources are ready for release from a specific collection site.
- The Planning Section will provide guidance on release priorities and demobilization recommendations.
- Information maintained by the Planning Section will be utilized to assist in the prioritization.
- Each incident will require a Decontamination Area.
- Decontaminated equipment will be returned to appropriate staging area for release or re-deployment.
- Transports for equipment will be required if remote from staging area.
- The Planning Section will document all demobilization and decontamination activities.
- Equipment designated for re-assignment will be mobilized to the appropriate staging area.
- The Division Supervisor will ensure a log is maintained documenting that proper decontamination procedures are performed for each piece of equipment.
- The Operations Section will ensure that redeployed personnel receive proper rest prior to returning to duty.
- The Planning Section Chief will monitor personnel redeployment activities to ensure number of hours worked is within acceptable guidelines.
- The Operations Section Chief must approve the Demobilization Plan before decontamination, release, or redeployment of any resources.

SECTION 6 Last Revised: April 2008

SENSITIVE AREAS / RESPONSE TACTICS

6.1 AREA DESCRIPTION

Description of shoreline types and specific shoreline protection and clean-up techniques are presented in **FIGURE 6.2-1 and FIGURE 6.3-2.** The strategies and response examples are guidelines and must be evaluated during the response to ensure that the selected response methods are appropriate for the situation.

Sensitivity maps are provided in **SECTION 6.7**.

6.2 SPILL CONTAINMENT/RECOVERY

Containment and recovery refer to techniques that can be employed to contain and recover terrestrial and aquatic petroleum spills.

Terrestrial spills typically result from pipeline or tank leaks. The Company is equipped with secondary containment systems for areas with non-pressurized breakout tanks. Spills occurring within the secondary containment area or along the pipeline areas should be contained at or near their source to minimize the size of the cleanup area and quantity of soil affected.

Containment is most effective when conducted near the source of the spill, where the oil has not spread over a large area and the contained oil is of sufficient thickness to allow effective recovery and/or cleanup. The feasibility of effectively implementing containment and recovery techniques is generally dependent upon the size of the spill, available logistical resources, implementation time, and environmental conditions or nature of the terrain in the spill area.

For terrestrial spills, trenches and earthen berms or other dams are most often used to contain oil migration on the ground surface. Recovery of free oil is best achieved by using pumps, vacuum sources, and/or sorbents.

Spills that reach water spread faster than those on land. They also have greater potential to contaminate water supplies, to affect wildlife and populated areas, and to impact manmade structures and human activities. Responses on water should therefore emphasize stopping the spill, containing the oil near its source, and protecting sensitive areas before they are impacted.

Sorbents are used to remove minor on water spills. For larger spills, booming is used to protect sensitive areas and to position oil so it can be removed with skimmers or vacuum trucks.

Due to entrainment, booming is not effective when the water moves faster than one knot or waves exceed 1.5 feet in height. Angling a boom will minimize entrainment. Using multiple, parallel booms will also improve recovery in adverse conditions. Given below is a summary of booming techniques.

Containment/Diversion Berming	• Berms are constructed ahead of advancing surface spills to contain spill or divert spill to a containment area • My cause disturbance of soils and some increased soil penetration
Blocking/Flow-	• Construct dam in drainage course/stream bed to block and

Through Dams	contain flow of spill. Cover with plastic sheeting. If water is flowing install inclined pipes during dam construction to pass water underneath dam • May increase soil penetration
Culvert Blocking	• Block culvert with plywood, sandbags, sediments, etc. to prevent oil from entering culvert
Interception Trench	• Excavate ahead of advancing surface spill to contain spill and prevent further advancement; cover bottom and gradients with plastic • May cause disturbance of soils and increased soil penetration
Containment booming	• Boom is deployed around free oil • Boom may be anchored or left to move with the oil
Diversion booming	• Boom is deployed at an angle to the approaching oil • Oil is diverted to a less sensitive area • Diverted oil may cause heavy oil contamination to the shoreline downwind and down current • Anchor points may cause minor disturbance to the environment
Exclusion booming	• Boom is placed around a sensitive area or across an inlet, a river mouth, a creek mouth, or a small bay • Approaching oil is contained or deflected (diverted) by the boom • Anchor points may cause minor disturbance to the environment

Sorbent booming	• Used only on quiet water with minor oil contamination • Boom is anchored along a shoreline or used in a manner described above

- May use boom made of sorbent material or may pack sorbent material between multiple booms placed parallel to each other

Other cleanup methods include: natural recovery, manual removal/scraping, low-pressure flushing, warm water washing, and burning. Berms and dams are also used in shallow waterways to protect areas.

Cleanup methods are provided in the appropriate Area Contingency Plan (ACP), NOAA's "Shoreline Assessment Manual," and NOAA's "Options for Minimizing Environmental Impacts of Freshwater Spill Response." (See http://response.restoration.noaa.gov for the latter two.)

FIGURE 6.2-1 - RESPONSE TACTICS FOR VARIOUS SHORELINES

TYPES	DESCRIPTION	PREDICTED OIL IMPACT	RECOMMENDED CLEANUP ACTIVITY
Developed/ Unforested land	• This class includes towns, cities, farms, pastures, fields, reclaimed wetlands, and other altered areas • Organisms and algae may be common in riprap structures and on pilings	• Oil would percolate easily between the gravel and boulders of riprap structures • Oil would coat the intertidal areas of solid structures • Biota would be damaged or killed under heavy accumulations	• May require high pressure spraying: ◦ To remove oil ◦ To prepare substrate for recolonization of barnacle and oyster communities ◦ For aesthetic reasons
Freshwater Flat	• Mud or organic deposits located along the shore or in shallow portions of nontidal freshwater lakes and ponds • They are exposed to low wave and current energy • They are often areas of heavy bird use	• Oil is expected to be deposited along the shoreline • Penetration of spilled oil into the water-saturated sediments of the flat will not occur • When sediments are contaminated, oil may persist for years	• These areas require high priority for protection against oil contamination • Cleanup of freshwater flats is nearly impossible because of soft substrate • Cleanup is usually not even considered because of the likelihood of mixing oil deeper into the sediments during the cleanup effort • Passive efforts, such as sorbent boom can be used to retain oil as it is naturally removed
Fresh Marsh	• Found along freshwater ponds and lakes	• Small amounts of oil will contaminate the outer marsh fringe	• Marshes require the highest priority for shoreline protection

	• These marshes have various types of vegetative cover, including floating aquatic mats, vascular submerged vegetation, needle and broad-leaved deciduous scrubs and shrubs, and broad-leaved evergreen scrubs and shrubs • Birds and mammals extensively use fresh marshes for feeding and breeding purposes	only; natural removal by wave action can occur within months • Large spills will cover more area and may persist for decades • Oil, particularly the heavy fuel oils, tends to adhere readily to marsh grasses	• Natural recovery is recommended when: ◦ A small extent of marsh is affected ◦ A small amount of oil impacts the marsh fringe • The preferred cleanup method is a combination of low-pressure flushing, sorption, and vacuum pumping performed from boats • Any cleanup activities should be supervised closely to avoid excessive disturbances of the marsh surface or roots • Oil wrack and other debris may be removed by hand
Swamp	• Swamps are freshwater wetlands having varying water depths with vegetation types ranging from shrubs and scrubs to poorly drained forested wetlands. Major vegetative types include: scrubs, shrubs, evergreen trees, and hardwood forested woodlands • Birds and mammals use swamps during feeding and breeding activities	• Even small amounts of spilled oil can spread through the swamp • Large spills will cover more area and may persist for decades since water-flushing rates are low • Oil, particularly the heavy fuel oils, will adhere to swamp vegetation • Unlike mangroves, the roots of swamp forest trees are not exposed; thus, little damage to trees is expected. Any underbrush vegetation, however, would be severely impacted	• No cleanup recommended under light conditions • Under moderate to heavy accumulations, to prevent chronic oil pollution of surrounding areas placement of sorbent along fringe swamp forest (to absorb oil as it is slowly released) may be effective under close scientific supervision • Proper strategic boom placement may be highly effective in trapping large quantities of oil, thus reducing oil impact to interior swamp forests • Oil trapped by boom can be reclaimed through the use of skimmers and

			vacuums

FIGURE 6.2-1 - RESPONSE TACTICS FOR VARIOUS SHORELINES, CONTINUED

TYPES	DESCRIPTION	PREDICTED OIL IMPACT	RECOMMENDED CLEANUP ACTIVITY
Open water	• Have ocean like waves and currents • Weather changes effect on-water conditions • River mouths present problems • Thermal stratification occurs	• Most organisms are mobile enough to move out of the spill area • Aquatic birds are vulnerable to oiling • Human usage (such as transportation, water intakes, and recreational activities) may be restricted	• Booming, skimming, vacuuming, and natural recovery are the preferred cleanup methods • Should not use sorbents, containment booming, skimming, and vacuuming on gasoline spills • Cleanup options include physical herding, sorbents, and debris/vegetation removal
Large rivers	• May have varying salinities, meandering channels, and high flow rates • May include manmade structures (such as dams and locks) • Water levels vary seasonally • Floods generate high suspended sediment and debris loads	• Fish and migratory birds are of great concern • Under flood conditions, may impact highly sensitive areas in floodplains • Human usage may be high • When sediments are contaminated, oil may persist for years	• Booming, skimming, and vacuuming are the preferred cleanup methods • Should not use sorbents, containment booming, skimming, and vacuuming on gasoline spills • Cleanup options include natural recovery, physical herding, sorbents, and debris/vegetation removal
Small lakes and ponds	• Water surface can be choppy • Water levels can fluctuate widely • May completely freeze in winter • Bottom sediments near the shore can be soft and muddy • Surrounding area may include wet meadows and	• Wildlife and socioeconomic areas likely to be impacted • Wind will control the oil's distribution	• Booming, skimming, vacuuming, and sorbents are the preferred cleanup methods • Should not use containment booming, vacuuming, sorbents, and skimming on gasoline spills • Cleanup options

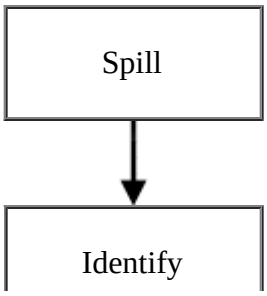
	marshes		include physical herding, sorbents, and debris/vegetation removal
Small rivers and streams	• Wide range of water bodies - fast flowing streams to slow moving bayous with low muddy banks and fringed with vegetation • May include waterfalls, rapids, log jams, mid-channel bars, and islands • Weathering rates may be slower because spreading and evaporation are restricted	• Usually contaminate both banks and the water column, exposing a large number of biota to being oiled • Water intakes for drinking water, irrigation, and industrial use likely to be impacted	• Booming, skimming, vacuuming, sorbents, barriers, and berms are the preferred cleanup methods • Should not use containment booming, sorbents, vacuuming, and skimming on gasoline spills • Cleanup options include physical herding, natural recovery, debris removal, vegetation removal, and in-situ burn

6.3 SENSITIVE AREA PROTECTION

Protection refers to the implementation of techniques or methods to prevent oil from making contact with a shoreline or aquatic area that is determined to be sensitive for environmental, economic, cultural, or human use reasons. Implementation of sensitive area protection techniques must consider a number of factors such as sensitive features, priorities for areas to be protected, and potential degree of impact.
In the event a product spill reaches a major area waterway, it may be necessary to protect downstream sensitive areas if it appears that local containment and recovery efforts will not be sufficient to control the entire spill. Major waterways and specific sensitive areas located downstream of the pipeline are provided in SECTION 6.7.

Site-specific protection strategies may be included in the appropriate Area Contingency Plan (ACP) as Geographic Response Plans (GRP).

FIGURE 6.3-1 - SENSITIVE AREA PROTECTION IMPLEMENT SEQUENCE



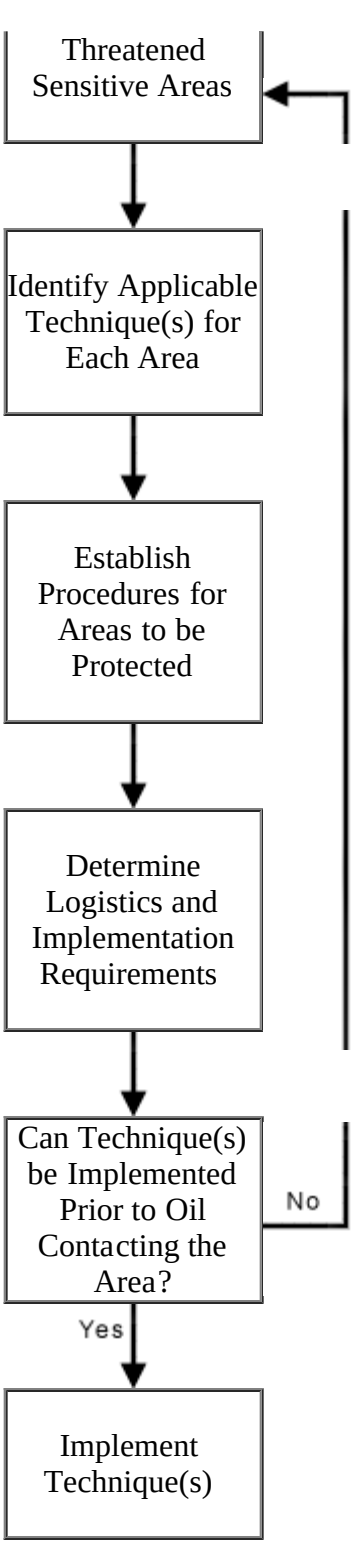


FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	POTENTIAL ENVIRONMENTAL EFFECTS
Removal				
1. Manual	Hand tool	Equipment	• Can be used	• Sediment

Removal	(scrapers, wire brushes, shovels, cutting tools, wheel barrows, etc.) are used to scrape oil off surfaces or recover oiled sediments, vegetation, or debris where oil conditions are light or sporadic and/or access is limited.	misc. hand tools Personnel 10-20 workers	on all habitat types • Light to moderate oiling conditions for stranded oil or heavy oils that have formed semi-solid to solid masses • In areas where roosting or birthing animals cannot or should not be disturbed	disturbance and erosion potential
2. Mechanical Removal	Mechanical earthmoving equipment is used to remove oiled sediments and debris from heavily impacted areas with suitable access.	Equipment motor grader, backhoe, dump truck elevating scrapers Personnel 2-4 workers plus equipment operators	• On land, wherever surface sediments are accessible to heavy equipment • Large amounts of oiled materials	• Removes upper 2 to 12 inches of sediments
3. Sorbent Use	Sorbents are applied manually to oil accumulations, coatings, sheens, etc. to remove and recover the oil.	Equipment misc. hand tools misc. sorbents Personnel 2-10 workers	• Can be used on all habitat types • Free-floating oil close to shore or stranded on shore, secondary treatment method after gross oil removal • Sensitive areas where access is restricted	• Sediment disturbance and erosion potential • Trampling of vegetation and organisms • Foot traffic can work oil deeper into soft sediments
4. Vacuum/Pumps/	Pumps, vacuum trucks, skimmers	Equipment 1-2 50- to 100-bbl	• Can be used on all habitat	• Typically does not remove all

Skimmers	are used to remove oil accumulations from land or relatively thick floating layers from the water.	vacuum trucks w/hoses 1-2 nozzle screens or skimmer heads Personnel 2-6 workers plus truck operators	types • Stranded oil on the substrate • Shoreline access points	oil • Can remove some surface organisms, sediments, and vegetation
Washing				
5. Flooding	High volumes of water at low pressure are used to flood the oiled area to float oil off and out of sediments and back into the water or to a containment area where it can be recovered.? Frequently used with flushing.	Equipment 1-5 100- to 200-gpm pumping systems 1 100-ft perforated header hose per system 1-2 200-ft containment booms per system 1 oil recovery device per system Personnel 6-8 workers per system	• All shoreline types except steep intertidal areas • Heavily oiled areas where the oil is still fluid and adheres loosely to the substrate • Where oil has penetrated into gravel sediments • Used with other washing techniques	• Can impact clean downgradient areas • Can displace some surface organisms if present • Sediments transported into water can affect water quality

FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES, CONTINUED

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	POTENTIAL ENVIRONMENTAL EFFECTS
Washing, Continued				
6. Flushing	Water streams at low to moderate pressure, and possibly elevated temperatures, are used to remove oil from surface or near-surface sediments through agitation and direct	Equipment 1-5 50- to 100-gpm/ 100-psi pumping systems with manifold 1-4 100-ft hoses and nozzles per system 1-2 200-ft containment booms per system	• Substrates, riprap, and solid man-made structures • Oil stranded onshore • Floating oil on shallow intertidal areas	• Can impact clean downgradient areas • Will displace many surface organisms if present • Sediments transported into water can affect

	contact.? Oil is flushed back into the water or a collection point for subsequent recovery.? May also be used to flush out oil trapped by shoreline or aquatic vegetation.	1 oil recovery device per system Personnel 8-10 workers per system		water quality • Hot water can be lethal to many organisms • Can increase oil penetration depth
7. Spot (High Pressure Washing)	High pressure water streams are used to remove oil coatings from hard surfaces in small areas where flushing is ineffective.? Oil is directed back into water or collection point for subsequent recovery.	Equipment 1-5 1,200- to 4,000-psi units with hose and spray wand 1-2 100-ft containment booms per unit 1 oil recovery device per unit Personnel 2-4 workers per unit	• Bedrock, man-made structures, and gravel substrates • When low-pressure flushing is not effective • Directed water jet can remove oil from hard to reach sites	• Will remove most organisms if present • Can damage surface being cleaned • Can affect clean downgradient or nearby areas
In Situ				
8. Passive Collection	Sorbent/snare booms or other sorbent materials are anchored at the waterline adjacent to heavily oiled areas to contain and recover oil as it leaches from the sediments.	Equipment 1,000-2,000 ft sorbent/snare boom 200-400 stakes or anchor systems Personnel 4-10 workers	• All shoreline types • Calm wave action • Slow removal process	• Significant amounts of oil can remain on the shoreline for extended periods of time
9. Sediment Tilling	Mechanical equipment or hand tools are used to till lightly to moderately oiled surface sediments to maximize natural degradation processes.	Equipment 1 tractor fitted with tines, dicer, ripper blades, etc. or 1-4 rototillers or 1 set of hand tools Personnel 2-10 workers	• Any sedimentary substrate that can support heavy equipment • Sand and gravel beaches with subsurface oil • Where	• Significant amounts of oil can remain on the shoreline for extended periods of time • Disturbs surface sediments and organisms

			• sediment is stained or lightly oiled • Were oil is stranded above normal high waterline	

FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES, CONTINUED

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	POTENTIAL ENVIRONMENTAL EFFECTS
In Situ, Continued				
10. In Situ Bioremediation	Fertilizer is applied to lightly to moderately oiled areas to enhance microbial growth and subsequent biodegradation of oil.	Equipment 1-2 fertilizer applicators 1 tilling device if required Personnel 2-4 workers	• Any shoreline habitat type where nutrients are deficient Moderate to heavily oiled substrates After other techniques have been used to remove free product on lightly oiled shorelines Where other techniques are destructive or ineffective	• Significant amounts of oil can remain on the shoreline for extended periods of time • Can disturb surface sediments and organisms
11. Log/Debris?? Burning	Oiled logs, driftwood, vegetation, and debris are burned to minimize material handling and disposal requirements.?	Equipment 1 set of fire control equipment 2-4 fans 1 supply of combustion promoter Personnel 2-4 workers	• On most habitats except dry muddy substrates where heat may impact the biological productivity of the habitat	• Heat may impact local near-surface organisms • Substantial smoke may be generated • Heat may impact adjacent vegetation

	Material should be stacked in tall piles and fans used to ensure a hot, clean burn.		• Where heavily oiled items are difficult or impossible to move • Many potential applications on ice	
12. Natural Recovery	No action is taken and oil is allowed to degrade naturally.	None required	• All habitat types • When natural removal rates are fast • Degree of oiling is light • Access is severely restricted or dangerous to cleanup crews • When cleanup actions will do more harm than natural removal	• Oil may persist for significant periods of time • Remobilized oil or sheens may impact other areas • Higher probability of impacting wildlife
13. Dispersants	Dispersants are used to reduce the oil/water interfacial tension thereby decreasing the energy needed for the slick to break into small particles and mix into the water column. ? Specially formulated products containing surface-active agents are sprayed from aircraft or boats	Dispersants Boat or aircraft	• Water bodies with sufficient depth and volume for mixing and dilution • When the impact of the floating oil has been determined to be greater than the impact of dispersed oil on the water-column community	• Use in shallow water could affect benthic resources • May adversely impact organisms in the upper 30 feet of the water column • Some water-surface and shoreline impacts could occur

	onto the slick.			
1 - Per 1000 feet of shoreline or oiled area				

Cleanup methods are provided in the appropriate Area Contingency Plan (ACP), NOAA's "Shoreline Assessment Manual," and NOAA's "Options for Minimizing Environmental Impacts of Freshwater Spill Response." (See http://response.restoration.noaa.gov for the latter two.)

6.4 ALTERNATIVE RESPONSE STRATEGIES

Non-mechanical methods for cleanup operations could involve the use of chemical cleaning products or appropriate bioremediation products. A checklist for evaluating differenct alternate strategies is present in **FIGURE 6.4-1**.

6.4.1 Dispersants

While physical removal is the most common method for eliminating spilled oil from the environment, mechanical removal may be limited by equipment capability, weather, sea conditions, and spill magnitude. An alternative strategy for reducing impacts from oil spills is to disperse the oil into the water by breaking it into small droplets and suspending them in the water. This process occurs naturally very slowly but can be accelerated by the application of a dispersant.

A dispersant is an agent (surfactant) which reduces the surface tension of the oil and water and allows them to mix more readily. In the presence of sufficient mixing energy supplied by waves, wind, or man-made turbulence, the oil can remain suspended in the water column resisting resurfacing and recoalescing. Dispersants may be effective in area where environmental or logistical considerations do not allow the deployment of cleanup equipment and personnel, and may reduce the overall level of effort and manpower requirement and personnel necessary for responding to major spills.

The Company will not use dispersants without the concurrence of the FOSC. Dispersants will not be used without concurrence of the EPA and the state with jurisdiction over the affected waters. Refer to the NCP for dispersant use policies and procedures.

6.4.2 Bioremediation

Bioremediation is the process of stimulating the growth and activity of microorganisms such as bacteria and fungi that naturally feed on hydrocarbons. It is conducted as a means of accelerating the natural biodegradation rates of stranded or floating oil. Biodegradation is a natural process by which the above microorganism, in the presence of nutrients an oxygen, chemically breakdown hydrocarbons and other substances and produce by-products including carbon dioxide, water, biomass, and partially oxidized products.

Biodegradation, together with physical processes such as evaporation and dispersion, are the primary natural mechanisms for the removal of hydrocarbons (oil spills) from the environment. This process generally occurs at a very low rate but can often be enhanced by the application of nutrients such as nitrogen, phosphorus, potassium, and others.

There are, however, instances on open seas or shorelines where standard recovery or cleanup techniques are not practical or will result in significant environmental or physical impacts. In these cases, bioremediation may be a viable response option and should be considered for use. **FIGURE 6.4-2** provides a federal decision guide for bioremediation consideration.

6.4.3 In-Situ Burn

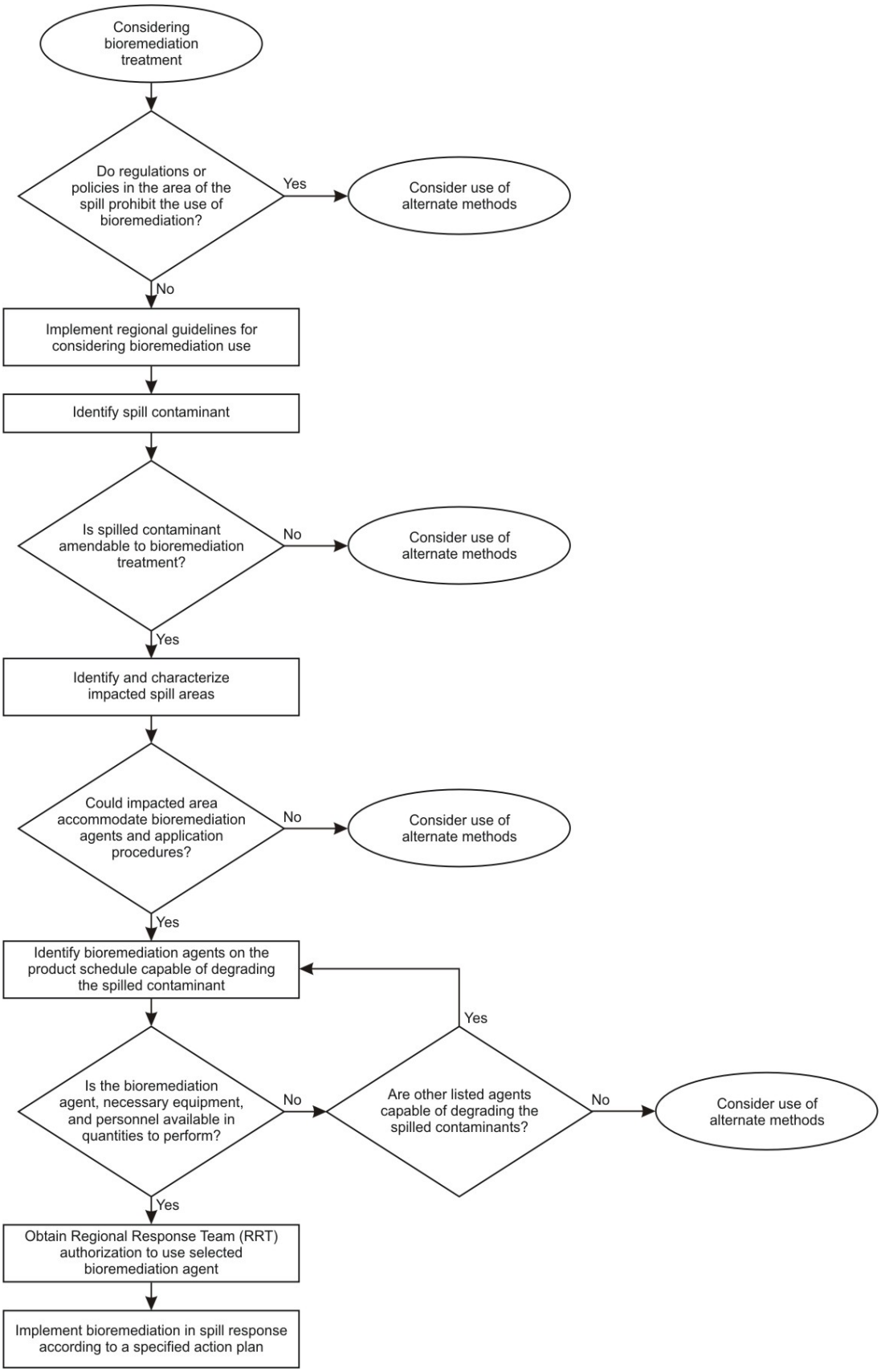
"In-Situ" burning has been successfully used as a viable technique for mitigating oil spills off shore and in a marsh type environment. This is especially true of areas that have mostly grassy vegetation with little or no woody vegetation. In a grassy marshland environment, an "In-Situ" burn may produce less long-term damage to the environment than traditional mechanical cleanup methods.

The company will not use In-Situ Burn without the concurrence of the FOSC and the Regional Response Team (RRT).

FIGURE 6.4-1 - ALTERNATE STRATEGIES CHECKLIST

Evaluate Alternate Strategies (oil spills only)	Initials	Date & Time Started	Date & Time Completed
No response			
In-situ burning			
Flood and flush			
Bioremediation/nutrient application			
Dispersants/surfactants			
Gelling/solidifying agents			
Sorbents			
Mechanical recovery			

FIGURE 6.4-2 - DECISION GUIDE FOR THE FEDERAL BIOREMEDIATION APPROVAL PROCESS



6.5 WILDLIFE PROTECTION AND REHABILITATION

- The Company will support wildlife protection and rehabilitation efforts during the

response, but will not typically directly manage these efforts.

- Company personnel will not attempt to rescue or clean affected wildlife, because such actions may cause harm to the individuals or may place the animals at further risk.
- Federal and state agencies responsible for wildlife capture and rehabilitation will typically coordinate capturing and rehabilitating oiled wildlife; a list of these agencies are included in **FIGURE 3.1-4**.
- Wildlife rehabilitation specialists may be utilized to assist in capturing and rehabilitating oiled animals as well as deterring unaffected animals away from the spill site.
- U.S. Fish & Wildlife is to be notified and consulted in establishing incident-specific priorities for the protection of the resources provided. Sensitive resources identified include environmentally sensitive lands, freshwater environments, and areas of economic significance.

6.6 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Amphipod, Noel's	*Gammarus desperatus*	Sinkholes, springs, and associated spring runs and wetland habitats	E	New Mexico
Bat, lesser long-nosed	*Leptonycteris curasoae yerbabuenae*	Caves, mines	E	New Mexico
Bat, Mexican long-nosed	*Leptonycteris nivalis*	Desert, woodland - mixed	E	New Mexico
Cactus, Knowlton	*Pediocactus knowltonii*	Gravelly, dark, sandy loams on slopes or hills	E	New Mexico
Cactus, Kuenzler hedgehog	*Echinocereus fendleri var. kuenzleri*	Gentle, gravelly to rocky slopes and benches on limestone or limy sandstone	E	New Mexico
Cactus, Lee pincushion	*Coryphantha sneedii var. leei*	Limestone ledges and hills	T	New Mexico
Cactus, Mesa Verde	*Sclerocactus mesae-verdae*	Gravelly, dark, sandy loams on slopes or hills	T	New Mexico
Cactus, Sneed pincushion	*Coryphantha sneedii var. sneedii*	Grasslands or lechuguilla-sotol shrublands on limestone outcrops and rocky slopes	E	New Mexico
Chub, Chihuahua	*Gila nigrescens*	Flowing pools of shallow of creeks and small rivers in canyons	T	New Mexico

Chub, Gila	*Gila intermedia*	Headwaters of smaller streams cienegas, springs and marshes	E	New Mexico
Eagle, bald Sonoran Desert DPS	*Haliaeetus leucocephalus*	Coastlines, rivers, lakes, wet prairies, and coastal pine lands	T	New Mexico
Ferret, black-footed entire population, except where EXPN	*Mustela nigripes*	Grasslands, steppe, and shrub steppe	E	New Mexico
Fleabane, Zuni	*Erigeron rhizomatus*	Pinyon-juniper woodlands	T	New Mexico
Flycatcher, southwestern willow	*Empidonax traillii extimus*	Streamside thickets, brushy fields, and willows	E	New Mexico
Frog, Chiricahua leopard	*Rana chiricahuensis*	Pine-oak forests with permanent water ponds	T	New Mexico
Gambusia, Pecos	*Gambusia nobilis*	Shallow margins of clear vegetated spring waters	E	New Mexico
Ipomopsis, Holy Ghost	*Ipomopsis sancti-spiritus*	Roadside and in small woodland clearings	E	New Mexico
Isopod, Socorro	*Thermosphaeroma thermophilus*	Small pools and runs between Sedillo Springs and the abandoned Evergreen bathhouse	E	New Mexico

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Jaguar	*Panthera onca*	Tropical and subtropical forests, mangrove swamps	E	New Mexico
Milk-vetch, Mancos	*Astragalus humillimus*	Sandstone ledges or mesa tops	E	New Mexico
Minnow, loach	*Tiaroga cobitis*	Flowing, unpolluted creeks, small to medium rivers with low amounts of fine sediment	T	New Mexico
Minnow, Rio Grande silvery Entire, except where listed as an	*Hybognathus amarus*	Large streams with slow to moderate current over mud,	E	New Mexico

experimental population		sand, or gravel bottom		
Owl, Mexican spotted	*Strix occidentalis lucida*	Forest, woodlands	T	New Mexico
Pennyroyal, Todsen's	*Hedeoma todsenii*	Steep gravelly north- and east-facing hillsides	E	New Mexico
Pikeminnow (=squawfish), Colorado except Salt and Verde R. drainages, AZ	*Ptychocheilus lucius*	Deep turbid strongly flowing water, eddies, runs, flooded bottoms, or backwaters	E	New Mexico
Plover, piping except Great Lakes watershed	*Charadrius melodus*	Sandy beaches, islands	T	New Mexico
Poppy, Sacramento prickly	*Argemone pleiacantha ssp. Pinnatisecta*	Loose, gravelly soils, canyon bottoms and slopes	E	New Mexico
Rattlesnake, New Mexican ridge-nosed	*Crotalus willardi obscurus*	Cave, mines, and rocks	T	New Mexico
Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*	Unshaded channels of creeks and small to large rivers	T	New Mexico
Shiner, beautiful	*Cyprinella formosa*	Small streams or pools of creeks	T	New Mexico
Shiner, Pecos bluntnose	*Notropis simus pecosensis*	Small streams or pools	T	New Mexico
Snail, Pecos assiminea	*Assiminea pecos*	Permanent, flowing, unpolluted, fresh to moderately saline water; Moist or saturated soil at stream or spring run margins with native vegetation growing in or adapted to aquatic or very wet environment, such as salt grass or sedges; and Stable water levels with natural diurnal and seasonal variation	E	New Mexico
Spikedace	*Meda fulgida*	Permanent, flowing, unpolluted water of low gradient streams	T	New Mexico
Springsnail, Alamosa	*Tryonia alamosae*	Gravel and sand substrate	E	New Mexico
Springsnail, Koster's	*Juturnia kosteri*	Springs, seeps, sinkholes, and outflows	E	New Mexico

Springsnail, Roswell	*Pyrgulopsis roswellensis*	Springs, seeps, sinkholes, and outflows	E	New Mexico

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Springsnail, Socorro	*Pyrgulopsis neomexicana*	Spring/brook	E	New Mexico
Sucker, razorback entire	*Xyrauchen texanus*	Slow areas, backwaters, and eddies of medium to large rivers	E	New Mexico
Sunflower, Pecos (=puzzle, =paradox)	*Helianthus paradoxus*	Desert wetlands	T	New Mexico
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	New Mexico
Thistle, Sacramento Mountains	*Cirsium vinaceum*	Moist banks of streams, wet meadows, and other moist areas	T	New Mexico
Topminnow, Gila (incl. Yaqui) U.S.A. only	*Poeciliopsis occidentalis*	Upland streams of desert and grasslands	E	New Mexico
Trout, Gila	*Oncorhynchus gilae*	Cold mountain streams	T	New Mexico
Wild-buckwheat, gypsum	*Eriogonum gypsophilum*	Open, gypsum in grama grassland	T	New Mexico
Wolf, gray Lower 48 States, except where delisted and where EXPN. Mexico	*Canis lupus*	Mixed, grassland/herbaceous	E	New Mexico
Woundfin except Gila R. drainage, AZ, NM	*Plagopterus argentissimus*	Swift, highly turpid, extremely warm, small to medium rivers	E	New Mexico
(No common name)	*Geocarpon minimum*	Grazing land	T	Texas
Ambrosia, south Texas	*Ambrosia cheiranthifolia*	Grasslands and various mesquite-dominated shrublands	E	Texas

Amphipod, Peck's cave	*Stygobromus (=Stygonectes) pecki*	Subterranean springs	E	Texas
Ayenia, Texas	*Ayenia limitaris*	Dense subtropical woodlands	E	Texas
Bat, Mexican long-nosed	*Leptonycteris nivalis*	Caves or similar mines and tunnels	E	Texas
Bear, Louisiana black	*Ursus americanus luteolus*	Forest - mixed, woodland	T	Texas
Beetle, American burying	*Nicrophorus americanus*	Cropland/hedgerow	E	Texas
Beetle, Coffin Cave mold	*Batrisodes texanus*	Isolated caves within the Edwards Limestone Formation	E	Texas

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Beetle, Comal Springs dryopid	*Stygoparnus comalensis*	Comal Springs	E	Texas
Beetle, Comal Springs riffle	*Heterelmis comalensis*	Gravel substrates and shallow riffles in spring runs	E	Texas
Beetle, Helotes mold	*Batrisodes venyivi*	Cavelike formations of Bexar County, Texas	E	Texas
Beetle, Kretschmarr Cave mold	*Texamaurops reddelli*	Edward's Plateau caves	E	Texas
Beetle, Tooth Cave ground	*Rhadine persephone*	Karst caves within the Edwards Limestone Formation	E	Texas
Bladderpod, white	*Lesquerella pallida*	Exposed calcareous Weches Formation outcrops	E	Texas
Bladderpod, Zapata	*Lesquerella thamnophila*	Open, evergreen thorn shrublands on gravelly to sandy loams	E	Texas
Cactus, black lace	*Echinocereus reichenbachii var. albertii*	Grassy openings on south Texas rangeland	E	Texas
Cactus, Chisos	*Echinocereus*	Desert grasslands or sparsely vegetated		

Mountain hedgehog	*chisoensis var. chisoensis*	shrublands on gravelly flats and terraces	T	Texas
Cactus, Lloyd's Mariposa	*Echinomastus mariposensis*	Arid, gravelly, limestone-derived soils on gentle slopes	T	Texas
Cactus, Nellie cory	*Coryphantha minima*	Rock crevices on novaculite outcrops	E	Texas
Cactus, Sneed pincushion	*Coryphantha sneedii var. sneedii*	Grasslands or lechuguilla-sotol shrublands on limestone outcrops and rocky slopes	E	Texas
Cactus, star	*Astrophytum asterias*	Sparse, fairly open brushland	E	Texas
Cactus, Tobusch fishhook	*Ancistrocactus tobuschii*	Sparse, fairly open brushland	E	Texas
Cat's-eye, Terlingua Creek	*Cryptantha crassipes*	Low hills and gentle slopes composed of a platy, yellowish limestone	E	Texas
Cory cactus, bunched	*Coryphantha ramillosa*	Chihuahuan Desert succulent scrub on rocky slopes, ledges, and gravelly flats	T	Texas
Crane, whooping except where EXPN	*Grus americana*	Cropland/hedgerow, grassland/herbaceous	E	Texas
Curlew, Eskimo	*Numenius borealis*	Cropland/hedgerow, grassland/herbaceous, tundra	E	Texas

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Darter, fountain	*Etheostoma fonticola*	Springs and spring-fed streams in dense beds of aquatic plants	E	Texas
Dawn-flower, Texas prairie	*Hymenoxys texana*	Poorly drained, sparsely vegetated areas	E	Texas
Dogweed, ashy	*Thymophylla tephroleuca*	Fine sand or sandy-loam soils on level or rolling grasslands often shrub-	E	Texas

		invaded		
Eagle, bald Sonoran Desert DPS	*Haliaeetus leucocephalus*	Coastlines, rivers, lakes, wet prairies, and coastal pine lands	T	Texas
Falcon, northern aplomado	*Falco femoralis septentrionalis*	Open grassland or savannah with scattered trees or shrubs	E	Texas
Flycatcher, southwestern willow	*Empidonax traillii extimus*	Streamside thickets, brushy fields, and willows	E	Texas
Frankenia, Johnston's	*Frankenia johnstonii*	Arid, gravelly, limestone-derived soils on gentle slopes	E	Texas
Gambusia, Big Bend	*Gambusia gaigei*	Herbaceous wetlands	E	Texas
Gambusia, Clear Creek	*Gambusia heterochir*	Springs and outflow streams	E	Texas
Gambusia, Pecos	*Gambusia nobilis*	Herbaceous wetlands	E	Texas
Gambusia, San Marcos	*Gambusia georgei*	Herbaceous wetlands	E	Texas
Ground beetle, [unnamed]	*Rhadine exilis*	Burrows, under stones and in damp soil	E	Texas
Ground beetle, [unnamed]	*Rhadine infernalis*	Burrows, under stones and in damp soil	E	Texas
Harvestman, Bee Creek Cave	*Texella reddelli*	Karst caves within the Edwards Limestone Formation	E	Texas
Harvestman, Bone Cave	*Texella reyesi*	Karst caves within the Edwards Limestone Formation	E	Texas
Harvestman, Cokendolpher Cave	*Texella cokendolpheri*	Subterranean obligate	E	Texas
Jaguarundi, Gulf Coast	*Herpailurus (=Felis) yagouaroundi cacomitli*	Tropical and subtropical forests	E	Texas
Ladies'-tresses, Navasota	*Spiranthes parksii*	Narrow band of vegetation called the Post-Oak Savannah	E	Texas

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Manatee, West Indian	*Trichechus manatus*	Shallow coastal waters, estuaries, bays, rivers, and lakes	E	Texas
Manioc, Walker's	*Manihot walkerae*	Tamaulipan grassland-thornscrub community	E	Texas
Meshweaver, Braken Bat Cave	*Cicurina venii*	Subterranean obligate	E	Texas
Meshweaver, Government Canyon Bat Cave	*Cicurina vespera*	Subterranean obligate	E	Texas
Meshweaver, Madla's Cave	*Cicurina madla*	Subterranean obligate	E	Texas
Meshweaver, Robber Baron Cave	*Cicurina baronia*	Subterranean obligate	E	Texas
Minnow, Devils River	*Dionda diaboli*	Creek medium river	T	Texas
Oak, Hinckley	*Quercus hinckleyi*	Arid, rocky, limestone-derived soils or limestone outcrops	T	Texas
Ocelot	*Leopardus (=Felis) pardalis*	Forest, wetlands	E	Texas
Owl, Mexican spotted	*Strix occidentalis lucida*	Forest, woodlands	T	Texas
Phlox, Texas trailing	*Phlox nivalis ssp. texensis*	"In fire-maintained openings in upland longleaf pine savannas or	E	Texas
Pitaya, Davis' green	*Echinocereus viridiflorus var. davisii*	Flat hills on a specific substrate rich in quartz sand, in west Texas	E	Texas
Plover, piping except Great Lakes watershed	*Charadrius melodus*	Wetlands	T	Texas
Pondweed, Little Aguja (=Creek)	*Potamogeton clystocarpus*	Pools and flowing streams with igneous-derived alluvium.	E	Texas
Poppy-mallow, Texas	*Callirhoe scabriuscula*	Grasslands, shin oak shrublands, or open oak or mesquite woodlands	E	Texas
Prairie-chicken, Attwater's greater	*Tympanuchus cupido attwateri*	Forest	E	Texas
Pseudoscorpion,	*Tartarocreagris texana*	Dry caves within the Edwards Limestone	E	Texas

Tooth Cave		Formation		
Pupfish, Comanche Springs	*Cyprinodon elegans*	Spring-marsh complex, irrigation canals	E	Texas

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Pupfish, Leon Springs	*Cyprinodon bovinus*	Spring-marsh complex, irrigation canals	E	Texas
Rush-pea, slender	*Hoffmannseggia tenella*	Sparsely vegetated openings within bluestem-sacahuista grasslands	E	Texas
Salamander, Barton Springs	*Eurycea sosorum*	Aquatic, rubble in the spring outflow at Barton Springs	E	Texas
Salamander, San Marcos	*Eurycea nana*	Clear spring water coming from the headwaters of the San Marcos River	T	Texas
Salamander, Texas blind	*Typhlomolge rathbuni*	Subterranean streams of the Purgatory Creek system	E	Texas
Sand-verbena, large-fruited	*Abronia macrocarpa*	Deep, well-drained sands	E	Texas
Sawfish, smalltooth	*Pristis pectinata*	Shallow coastal waters of tropical seas and estuaries; sheltered bays, on shallow banks, and in estuaries or river mouths	E	Texas
Sea turtle, green except where endangered	*Chelonia mydas*	Coasts, open sea	T	Texas
Sea turtle, hawksbill	*Eretmochelys imbricata*	Clear offshore waters off the mainland and on island shelves	E	Texas
Sea turtle, Kemp's ridley	*Lepidochelys kempii*	Shallow areas with sandy and muddy bottoms	E	Texas
Sea turtle, leatherback	*Dermochelys coriacea*	Warm sands of tropical beaches	E	Texas
Sea turtle, loggerhead	*Caretta caretta*	Estuaries, coastal streams and salt marshes	T	Texas

Shiner, Arkansas River Arkansas R. Basin	*Notropis girardi*	Unshaded channels of creeks and small to large rivers	T	Texas
Snail, Pecos assiminea	*Assiminea pecos*	Permanent, flowing, unpolluted, fresh to moderately saline water; Moist or saturated soil at stream or spring run margins with native vegetation growing in or adapted to aquatic or very wet environment, such as salt grass or sedges; and Stable water levels with natural diurnal and seasonal variation	E	Texas
Snake, Concho water	*Nerodia paucimaculata*	Bare rock/talus/scree	T	Texas
Snowbells, Texas	*Styrax texanus*	Praries and pastures	E	Texas
Spider, Government Canyon Bat Cave	*Neoleptoneta microps*	Subterranean obligate	E	Texas
Spider,Tooth Cave	*Leptoneta myopica*	Subterranean obligate	E	Texas

T - Threatened
E - Endangered

6.6 ENDANGERED AND THREATENED SPECIES BY STATE , CONTINUED

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE
Sunflower, Pecos (=puzzle, =paradox)	*Helianthus paradoxus*	Desert wetlands	T	Texas
Tern, least interior pop.	*Sterna antillarum*	Open sandy or gravelly beach, dredge spoil and other open shoreline areas	E	Texas
Toad, Houston	*Bufo houstonensis*	Soft sandy soils; pine forest, mixed deciduous forest	E	Texas
Vireo, black-capped	*Vireo atricapillus*	Shrubland/chaparral	E	Texas
Warbler (=wood), golden-cheeked	*Dendroica chrysoparia*	Woodlands with tall Ashe juniper, oaks, and other hardwood trees	E	Texas

Whale, finback	*Balaenoptera physalus*	Offshore ocean waters	E	Texas
Whale, humpback	*Megaptera novaeangliae*	Surface of the ocean	E	Texas
Wild-rice, Texas	*Zizania texana*	Gravelly, sandy to silty clays in relatively shallow water	E	Texas
Woodpecker, red-cockaded	*Picoides borealis*	Open pine forests with large, widely-spaced older trees	E	Texas

T - Threatened
E - Endangered

6.7 MAP FEATURE INDEX

MAP ID#	MAP NAME	FEATURE	NAME
13	Albuquerque	Forest	Cibola National Forest

6.8 DOT SENSITIVITY STUDY

Click to view/print Overview

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 Overview

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 Overview

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 Overview

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 Overview

Rocky Mountain Zone **Page 6 - 30**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 Overview

Rocky Mountain Zone **Page 6 - 31**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0144

Rocky Mountain Zone **Page 6 - 32**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0159

Rocky Mountain Zone **Page 6 - 33**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0160

Rocky Mountain Zone **Page 6 - 34**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0173

Rocky Mountain Zone **Page 6 - 35**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0174

Rocky Mountain Zone **Page 6 - 36**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0175

Rocky Mountain Zone **Page 6 - 37**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0189

Rocky Mountain Zone **Page 6 - 38**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0203

Rocky Mountain Zone **Page 6 - 39**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0204

Rocky Mountain Zone **Page 6 - 40**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0205

Rocky Mountain Zone **Page 6 - 41**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0218

Rocky Mountain Zone **Page 6 - 42**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0219

Rocky Mountain Zone **Page 6 - 43**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0220

Rocky Mountain Zone **Page 6 - 44**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0233

Rocky Mountain Zone **Page 6 - 45**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0234

Rocky Mountain Zone **Page 6 - 46**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0236

Rocky Mountain Zone **Page 6 - 47**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0249

Rocky Mountain Zone **Page 6 - 48**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0250

Rocky Mountain Zone **Page 6 - 49**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H09 0252

Rocky Mountain Zone **Page 6 - 50**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0009

Rocky Mountain Zone **Page 6 - 51**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0010

Rocky Mountain Zone **Page 6 - 52**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0024

Rocky Mountain Zone **Page 6 - 53**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0025

Rocky Mountain Zone **Page 6 - 54**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0038

Rocky Mountain Zone **Page 6 - 55**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0039

Rocky Mountain Zone **Page 6 - 56**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0040

Rocky Mountain Zone **Page 6 - 57**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0053

Rocky Mountain Zone **Page 6 - 58**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0054

Rocky Mountain Zone **Page 6 - 59**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0067

Rocky Mountain Zone **Page 6 - 60**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0068

Rocky Mountain Zone **Page 6 - 61**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0069

Rocky Mountain Zone **Page 6 - 62**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0082

Rocky Mountain Zone **Page 6 - 63**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0083

Rocky Mountain Zone **Page 6 - 64**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0097

Rocky Mountain Zone **Page 6 - 65**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0098

Rocky Mountain Zone **Page 6 - 66**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0113

Rocky Mountain Zone **Page 6 - 67**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print H10 0129

Rocky Mountain Zone **Page 6 - 68**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0175

Rocky Mountain Zone **Page 6 - 69**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0176

Rocky Mountain Zone **Page 6 - 70**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0190

Rocky Mountain Zone **Page 6 - 71**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0191

Rocky Mountain Zone **Page 6 - 72**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0205

Rocky Mountain Zone **Page 6 - 73**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0206

Rocky Mountain Zone **Page 6 - 74**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0220

Rocky Mountain Zone **Page 6 - 75**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0221

Rocky Mountain Zone **Page 6 - 76**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0235

Rocky Mountain Zone **Page 6 - 77**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0236

Rocky Mountain Zone **Page 6 - 78**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0250

Rocky Mountain Zone **Page 6 - 79**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G10 0251

Rocky Mountain Zone **Page 6 - 80**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0011

Rocky Mountain Zone **Page 6 - 81**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0012

Rocky Mountain Zone **Page 6 - 82**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0026

Rocky Mountain Zone **Page 6 - 83**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0027

Rocky Mountain Zone **Page 6 - 84**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0041

Rocky Mountain Zone **Page 6 - 85**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0042

Rocky Mountain Zone **Page 6 - 86**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0055

Rocky Mountain Zone **Page 6 - 87**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0056

Rocky Mountain Zone **Page 6 - 88**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0057

Rocky Mountain Zone **Page 6 - 89**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0070

Rocky Mountain Zone **Page 6 - 90**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0071

Rocky Mountain Zone **Page 6 - 91**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0085

Rocky Mountain Zone **Page 6 - 92**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0086

Rocky Mountain Zone **Page 6 - 93**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0100

Rocky Mountain Zone **Page 6 - 94**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0101

Rocky Mountain Zone **Page 6 - 95**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0115

Rocky Mountain Zone **Page 6 - 96**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0116

Rocky Mountain Zone **Page 6 - 97**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0130

Rocky Mountain Zone **Page 6 - 98**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0131

Rocky Mountain Zone **Page 6 - 99**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0145

Rocky Mountain Zone **Page 6 - 100**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0146

Rocky Mountain Zone **Page 6 - 101**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print G11 0161

Rocky Mountain Zone **Page 6 - 102**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0111

Rocky Mountain Zone **Page 6 - 103**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0112

Rocky Mountain Zone **Page 6 - 104**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0127

Rocky Mountain Zone **Page 6 - 105**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0143

Rocky Mountain Zone **Page 6 - 106**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0159

Rocky Mountain Zone **Page 6 - 107**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0160

Rocky Mountain Zone **Page 6 - 108**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0176

Rocky Mountain Zone **Page 6 - 109**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0192

Rocky Mountain Zone **Page 6 - 110**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0206

Rocky Mountain Zone **Page 6 - 111**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0207

Rocky Mountain Zone **Page 6 - 112**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0208

Rocky Mountain Zone **Page 6 - 113**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0222

Rocky Mountain Zone **Page 6 - 114**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0223

Rocky Mountain Zone **Page 6 - 115**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0237

Rocky Mountain Zone **Page 6 - 116**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0238

Rocky Mountain Zone **Page 6 - 117**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0252

Rocky Mountain Zone **Page 6 - 118**

6.8 DOT SENSITIVITY STUDY, CONTINUED

Click to view/print F11 0253

SECTION 7 Last Revised: July 2014

SUSTAINED RESPONSE ACTIONS

7.1 RESPONSE RESOURCES

7.1.1 Response Equipment

Company and Contractor response equipment is provided in **FIGURE 7.1-1**.

FIGURE 7.1-1 - REGIONAL COMPANY AND RESPONSE CONTRACTOR'S EQUIPMENT LIST/RESPONSE TIME

* USCG Classified OSRO

COMPANY/CONTRACTOR	EQUIPMENT	RESPONSE TIME
Talon LPE Midland, TX	Boom, heavy equipment, vacuum trucks, etc.	0 hour(s)
*Garner Environmental Services Dallas, Texas	Boom, skimmers and trailer	11 hour(s)
*Heritage Environmental Services Coolidge, AZ	Boom and skimmers	9 hour(s)

7.1.2 Response Equipment Inspection and Maintenance

Currently the Company owns no response equipment.

7.1.3 Contractors, Contractor Equipment, and Labor

- The Company's primary response contractors' names and phone numbers, as well as other companies who can provide spill response services are provided in **SECTION 3**.
- The Company has ensured by contract the availability of private personnel and equipment necessary to respond, to the maximum extent practicable, to the worst case discharge or the substantial threat of such discharge.
- Contractors without USCG classification deploy and inspect boom to meet PREP guidelines. Company requires that these exercises are completed annually.
- **APPENDIX B** contains evidence of contracts for the Company's primary response contractors.

7.1.4 Command Post

In the event of a major spill, both an off-site Emergency Operations Center (EOC) and a Unified Command Post would be established. For a minor spill, only a Command Post would be established. Refer to **FIGURE 7.1-2** for guidelines in establishing a Command Post.

FIGURE 7.1-2 - COMMAND POST CHECKLIST

COMMAND POST CHECKLIST	INITIALS	DATE/TIME STARTED	DATE/TIME COMPLETED

Ensure adequate space for size of staff.			
Ensure 24 hour accessibility.			
Ensure personal hygiene facilities.			
Ensure suitability of existing communications resources (phone/fax/radio).			
Ensure suitability of private conference and briefing rooms.			
Identify Command Post security requirements, safe location.			
Notify other parties of Command Post location; provide maps/driving directions.			
Determine staging areas and incident base locations.			
Identify future need to move, upgrade facilities.			

7.1.5 Staging Area

In a major spill response, numerous staging areas may be required to support containment and clean-up operations.

In selecting a suitable staging area, the following criteria should be considered:

- Accessibility to impacted areas;
- Proximity to secure parking, airports, docks, pier, or boat launches; and
- Accessibility to large trucks and trailers which may be used to transfer equipment.

In addition, the staging area should:

- Be in a large open area in order to provide storage for equipment and not interfere with equipment loading and offloading operations.
- Have a dock/pier on site for deploying equipment.
- Have moorage available for vessels to aid the loading/offloading of personnel.

7.1.6 Communications Plan

Company owned communications equipment and quantities commonly used to address response communications are listed below:

- 19 Land-line telephones
- 22 Cellular phones
- 6 Radios
- 4 Fax

- 25 Computers

Normal Company communications to each facility are conducted via telephone lines, cellular telephones, two way radios, e-mail, and fax machines.

Additional communications equipment (VHF portable radios with chargers and accessories, command post with UHF, VHF, single sideband, marine, aeronautical, telephone, and hard-line capability) may be provided by the Company or leased from a communications company in the area. Communications with government agencies, state police, and contractors can be conducted on portable radios. Refer to **FIGURE 7.1-3** for guidelines to setup communications.

It is the responsibility of the Qualified Individual to provide an adequate communications system.
The Communications Plan, written at the time of an incident, will identify telephone numbers and radio frequencies used by responders. This may also involve activation of multiple types of communications equipment and coordination among multiple responding agencies and contractors.

FIGURE 7.1-3 - COMMUNICATIONS CHECKLIST

COMMUNICATIONS CHECKLIST	INITIALS	DATE/TIME STARTED	DATE/TIME COMPLETED
Develop a Communications Plan.			
Ensure adequate phone lines per staff element - contact local provider.			
Ensure adequate fax lines - contact local provider.			
Internet access necessary?			
Ensure recharging stations for cellular phones.			
VHF radio communications: • Establish frequencies • Assign call signs • Distribute radios • Establish communications schedule			
Ensure recharging stations for VHF radios.			
Determine need for VHF repeaters.			
Ensure copy machine available.			
Ensure communications resource accountability.			
Ensure responders have capability to communicate with aircraft.			

Note: Actions on this checklist may not be applicable or may be continuous activities.

7.2 SITE SECURITY MEASURES

(b) (7)(F), (b) (3)

[redacted]

7.3 WASTE MANAGEMENT

Initial oil handling and disposal needs may be overlooked in the emergency phase of a response, which could result in delays and interruptions of cleanup operations. Initially, waste management concerns should address:

- Equipment capacity,
- Periodic recovery of contained oil, and
- Adequate supply of temporary storage capacity and materials.

The following action items should be conducted during a spill response:

- Development of a Site Safety and Health Plan (**SECTION 5.3**) addressing the proper PPE and waste handling procedures.
- Development of a Disposal Plan (**SECTION 5.5**) in accordance with any federal, state, and/or local regulations.
- Continuous tracking of oil disposition in order to better estimate amount of waste that could be generated over the short and long-term.
- Organization of waste collection, segregation, storage, transportation, and proper disposal.
- Minimization of risk of any additional pollution.
- Regulatory review of applicable laws to ensure compliance and (if appropriate) obtain permits.
- Documentation of all waste handling and disposal activities.
- Disposal of all waste in a safe and approved manner.

Good hazardous waste management includes:

- Reusing materials when possible,
- Recycling or reclaiming waste, and
- Treating waste to reduce hazards or reducing amount of waste generated.

The management of the wastes generated in cleanup and recovery activities must be conducted with the overall objective of ensuring:

- Worker safety,
- Waste minimization,
- Cost effectiveness,
- Minimization of environmental impacts,

7.3 WASTE MANAGEMENT, CONTINUED

- Proper disposal, and
- Minimization of present and future environmental liability.

Solid wastes such as sorbents, PPE, debris, and equipment will typically be transported from the collection site to a designated facility for:

- Storage
- Waste segregation
- Packaging
- Transportation

Once this process is complete, the waste will be shipped off-site to an approved facility for required disposal.

A general flow chart for waste management guidelines is provided in **FIGURE 7.3-1**. An overall checklist for containment and disposal is provided in **FIGURE 7.3-2**.

FIGURE 7.3-1 - WASTE MANAGEMENT FLOW CHART

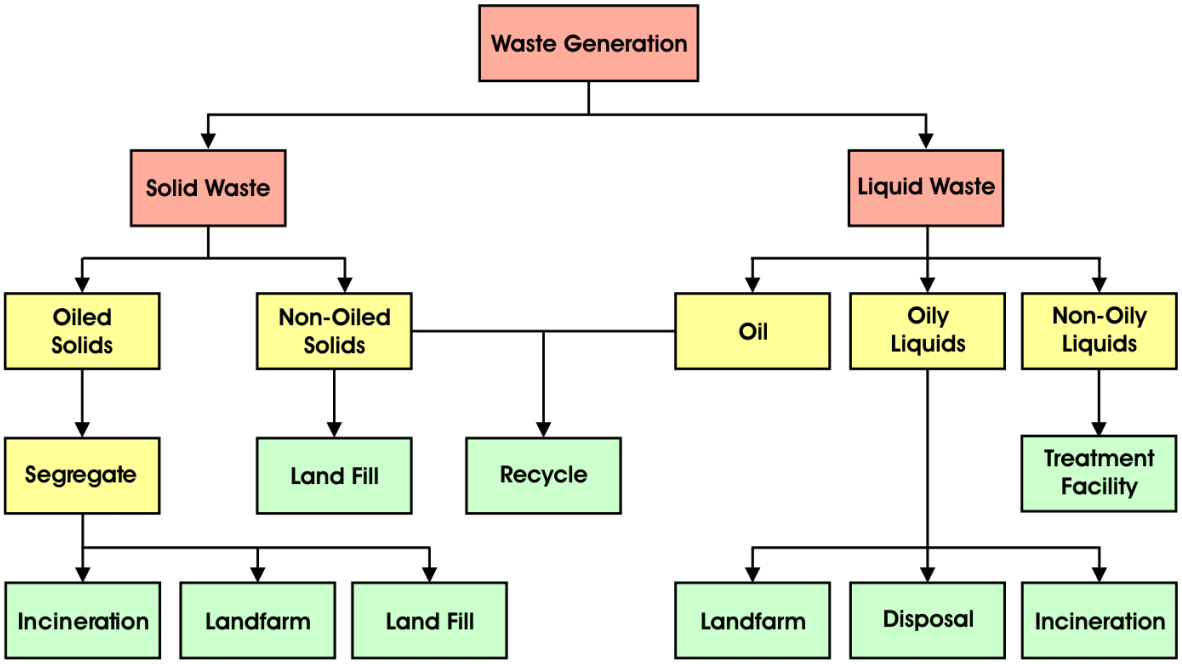


FIGURE 7.3-2 - GENERAL WASTE CONTAINMENT AND DISPOSAL CHECKLIST

CONSIDERATION	YES/NO/NA
Is the material being recovered a waste or reusable product?	

Has all recovered waste been containerized and secured so there is no potential for further leakage while the material is being stored?	
Has each of the discrete waste streams been identified?	
Has a representative sample of each waste stream been collected?	
Has the sample been sent to an approved laboratory for the appropriate analysis, (i.e. hazardous waste determination)?	
Has the appropriate waste classification and waste code number(s) for the individual waste streams been received?	
Has a temporary EPA identification number and generator number(s) been received, if they are not already registered with EPA?	
Have the services of a registered hazardous waste transporter been contracted, if waste is hazardous?	
If the waste is nonhazardous, is the transporter registered?	
Is the waste being taken to an approved disposal site?	
Is the waste hazardous or Class I nonhazardous?	
If the waste is hazardous or Class I nonhazardous, is a manifest being used?	
Is the manifest properly completed?	
Are all federal, state, and local laws/regulations being followed?	
Are all necessary permits being obtained?	
Has a Disposal Plan been submitted for approval/review?	
Has PPE and waste-handling procedures been included in the Site Safety and Health Plan to protect the health and safety of waste handling personnel?	

7.3.1 Storage

During an oil spill, the volume of oil that can be recovered depends on the storage capacity available. Typical short-term (temporary) storage methods are provided in FIGURE 7.3-3. If storage containers such as bags or drums are used, the container should be clearly marked and/or color-coded to indicate the type of material or waste contained and/or the ultimate disposal option.

FIGURE 7.3-3 - TEMPORARY STORAGE METHODS

CONTAINMENT	PRODUCT						
	OIL	OIL/WATER	OIL/SOIL	OIL/DEBRIS (Small)	OIL/DEBRIS (Medium)	OIL/DEBRIS (Large)	CAPACITY
Drums	X	X	X				0.2-0.5 yd^3
Bags		X	X	X			1.0-2.0 yd^3
Boxes		X	X	X			1-5 yd^3
Open top rolloff	X	X	X	X	X	X	8-40 yd^3
							3

Roll top rolloff	X	X	X	X	X	X	15-25 yd
Vacuum box	X	X					15-25 yd^3
Frac tank	X	X					500-20,000 gal
Poly tank	X	X					200-4,000 gal
Vacuum truck	X	X	X				2,000-5,000 gal
Tank trailer	X	X					2,000-4,000 gal
Barge	X	X					3,000+gal
Berm, 4 ft		X	X	X	X	X	1 yd^3
Bladders	X	X					25 gal-1,500 gal

7.4 PUBLIC AFFAIRS

This section contains guidelines for dealing with the media during an emergency. The Incident Commander will play a key role in providing the initial public assessment and taking the first steps to provide the Company's public response. Information in this section includes:

- Guidelines for dealing with the media
- Media Incident Fact Sheet (**FIGURE 7.4-1**)

GUIDELINES FOR DEALING WITH THE MEDIA

- You as a Company Manager are the most logical person for reporters to seek out for information
- Reporters will look elsewhere to find out what happened if you do not answer their questions; however, if you do not have this information or are not prepared to answer a particular question, say so then say when they can expect the answers to their questions (such as one hour)
- It is important to be courteous to all media representatives and to provide a safe place for them to wait until a company representative can meet them; you may need to provide an initial statement

Provide	• A brief, general description of what happened. • Steps being taken to handle the emergency.
Don't provide	• Names of deceased or seriously injured employees until the next of kin have been notified. • Speculation about the cause of the emergency.

- Any statement implying personal or Company negligence.
- Number of injured or killed, if known.
- Cost estimates of damage

Other considerations

- Safety considerations should always receive priority in determining access to company property
- Anticipate likely questions.
- There are only six questions that can be asked about any subject: who, what, when, where, why, and how.
- Keep answers short and understandable.
- Answer only the question that is asked by the reporter.
- Give the most important facts first.
- Talk to the public's concern about the incident such as whether these were deaths, injuries, any threat to the public, or danger of explosion or fire.
- If you don't know the answer to a question, don't be afraid to say "I don't know"; make note of the question and tell the reporter that you will try to get the answer for him - then do it.
- Don't be defensive.

Other considerations, continued:

- There is no such thing as "Talking off the record"; assume that anything and everything you say to a reporter is going to be printed and/or used in the story.
- Avoid "What If?" or speculative questions; these questions should be answered with a restatement of the problem and what is being done to control it.
- Don't speculate about the cause of the incident.
- Don't minimize the situation.

FIGURE 7.4-1 - MEDIA INCIDENT FACT SHEET

What occurred:
When (time):

Where (location):
What are the hazards:
How is the situation being handled:
What agencies have been notified: **All necessary agencies have been notified.**
Has outside help been requested: **All necessary assistance has been requested.**
Is there danger to the plant:
Is there danger to the community:
What:
Is there an environmental hazard:
What is the environmental hazard:
What is being done to minimize environmental threat: **All appropriate actions to protect the environment are being taken.**
Is there a need for evacuation:

SECTION 8 Last Revised: April 2008

DEMOBILIZATION / POST-INCIDENT REVIEW

8.1 TERMINATING THE RESPONSE

- A team of federal, state, and company personnel must certify that each area is clean before halting cleanup operations.
- Demobilize equipment and personnel at the first opportunity in order to reduce cost.
- Consider which resources should be demobilized first; for example, berthing expenses can be saved by demobilizing out-of-area contractors before local ones.
- Equipment may need both maintenance and decontamination before being demobilized.
- All facilities (staging area, Command Post, etc.) should be returned to their pre-spill condition before terminating operations.
- Determine what documentation should be maintained, where, and for how long.
- Contract personnel may be more susceptible to "suffering" injuries as they approach termination.
- Some activities will continue after the cleanup ends; examples include incident debriefing, bioremediation, NRDA studies, claims, and legal actions.
- Consider expressing gratitude to the community, police department, fire department, and emergency crews for their work during the response.

8.2 DEMOBILIZATION

The Company can reduce costs considerably by developing a Demobilization Plan (**SECTION 5.7**). Therefore, emphasis must be placed on establishing efficient demobilization procedures. A Demobilization Checklist is provided in **FIGURE 8.2-1**.

FIGURE 8.2-1 - DEMOBILIZATION CHECKLIST

DEMOBILIZATION CHECKLIST	INITIALS	DATE/TIME STARTED	DATE/TIME COMPLETED
Assign personnel to identify surplus resources and probable release times.			
Establish demobilization priorities.			
Develop decontamination procedures.			
Initiate equipment repair and maintenance.			
Develop a Disposal Plan.			
Identify shipping needs.			
Identify personnel travel needs.			
Develop impact assessment and statements.			
Obtain concurrence of Planning and Operations			

Group Leaders before release of personnel or equipment.			

8.3 POST INCIDENT REVIEW

All facility personnel involved in the incident shall be debriefed (by the Company) within 24 hours after termination of operations. The primary purpose of the post-incident review is to identify actual or potential deficiencies in the Plan and determine the changes required to correct the deficiencies. The post-incident review is also intended to identify which response procedures, equipment, and techniques were effective and which were not and the reason(s) why. This type of information is very helpful in the development of a functional Plan by eliminating or modifying those response procedures that are less effective and emphasizing those that are highly effective. This process should also be used for evaluating training drills or exercises. Key agency personnel that were involved in the response will be invited to attend the post-incident review. An Emergency Response or Drill Form is provided in **FIGURE 8.3-1**.

FIGURE 8.3-1 - EMERGENCY RESPONSE OR DRILL FORM

LOCATION NUMBER:	**LOCATION/FACILITY NAME:**		
PIPELINE LOCATION:		**COUNTY/PARISH:**	
DATE:	**ATTENDANCE:**	**DRILL LENGTH:**	
TYPE OF EXERCISE			
☐ ACTUAL	☐ ANNOUNCED	☐ UNANNOUNCED	
☐ DEPLOYMENT ☐ NOTIFICATION	☐ TABLETOP ☐ FUNCTIONAL	☐ FULL SCALE	
FREQUENCY OF EXERCISE			
☐ QUARTER ☐ 1ST ☐ 2ND ☐ 3RD ☐ 4TH			
☐ ANNUAL DRILL ☐ SEMI-ANNUAL DRILL			
PARTICIPANTS			
COMPANY/AGENCY	**CONTACT PERSON**	**TIME**	**PHONE**
(IF MORE AGENCIES INVOLVED ATTACH LIST)			
EXPLANATION OF SCENARIO:			

LESSONS LEARNED:

ANY DEFICIENCIES IDENTIFIED (Page 2)	☐ **YES**	☐ **NO**
IF YES, CHANGES IMPLEMENTED?	☐ **YES**	☐ **NO**

IF NO, ARE ACTION ITEMS ENTERED IN ONLINE ACTION ITEM TRACKING DATABASE FOR FOLLOW UP?

SIGNATURE, INCIDENT COMMANDER/PREPARER

FIGURE 8.3-1 - EMERGENCY RESPONSE OR DRILL FORM, CONTINUED

YES	NO	NA	
☐	☐	☐	Notification - Were notification procedures followed and adequate?
☐	☐	☐	Safety Respond - Was the scene approached properly?
☐	☐	☐	Isolate and Deny Entry - Were zones, corridors, and evacuation routes used properly?
☐	☐	☐	Command - Was incident command established and used properly?
☐	☐	☐	Identification of Material - Was material identified in an appropriate time and manner?
☐	☐	☐	Assessment/Action Plan - Was written action plan developed and followed?
☐	☐	☐	Protective Equipment - Was PPE identified and used properly?
☐	☐	☐	Control - Were control techniques applied appropriately?
☐	☐	☐	Protective Actions - Were protective actions applied appropriately?
☐	☐	☐	Decontamination - Waste material(s) disposed of properly?
☐	☐	☐	Disposal - Waste material(s) disposed of properly?
☐	☐	☐	Termination - Was the incident terminated at the appropriate time, and all de-briefed?

☐ ☐ ☐ Medical - Was medical and/or first aid available and used properly?

☐ ☐ ☐ Documentation - Was all documentation gathered?

SIGNATURE, INCIDENT COMMANDER/PREPARER

8.3.1 Final Spill Cleanup Report

A final, comprehensive report shall be prepared by the Incident Commander or his designee after completion of spill cleanup activities for internal use. It should be written in the narrative form and include the information listed below (as appropriate):

- Time, location, and date of discharge.
- Type of material discharged.
- Quantity discharged (indicate volume, color, length and width of slick, and rate of release if continuous).
- Source of spill (tank, flowline, etc.) in which the oil was originally contained, path of discharge, and impact area.
- Detailed description of what actually caused the discharge and actions taken to control or stop the discharge.
- Description of damage to the environment.
- Steps taken to clean up the spilled oil along with dates and times steps were taken.
- The equipment used to remove the spilled oil, dates, and number of hours equipment was used.
- The number of persons employed in the removal of oil from each location, including their identity, employer, and the number of hours worked at that location.
- Actions by the Company or contractors to mitigate damage to the environment.
- Measures taken by the Company or contractors to prevent future spills.
- The federal and state agencies to which the Company or contractors reported the discharge; show the agency, its location, the date and time of notification, and the official contacted.
- Description of the effectiveness of equipment and cleanup techniques and recommendations for improvement.
- The names, addresses, and titles of people who played a major role in responding to the

event.

- A section identifying problems and deficiencies noted during the response event; a follow-up section should include recommended procedure modifications to make a future response more effective and efficient.

- All other relative information.

Rocky Mountain Zone

APPENDICES

A. **TRAINING / EXERCISES**

B. **CONTRACTOR RESPONSE EQUIPMENT**

C. **HAZARD EVALUATION AND RISK ANALYSIS**

D. **CROSS REFERENCE**

E. **ACRONYMS AND DEFINITIONS**

APPENDIX A Last Revised: August 2011

TRAINING / EXERCISES

A.1 EXERCISE REQUIREMENTS AND SCHEDULES

- The Company participates in the National Preparedness for Response Exercise Program (PREP).
- During each triennial cycle, all components of the Plan (**FIGURE A.1-1**) must be exercised at least once.
- The Area Manager is responsible for the following aspects:
    - Scheduling
    - Maintaining records
    - Implementing
    - Evaluation of the Company's training and exercise program
    - Post-drill evaluation improvements
- FIGURE A.1-2 provides descriptions of exercise requirements. FIGURE A.1-3 provides an Emergency Response or Drill Form.

FIGURE A.1-1 - PREP RESPONSE PLAN CORE COMPONENTS

CORE COMPONENTS	DESCRIPTION
1. Notifications	Test the notifications procedures identified in the Area Contingency Plan (ACP) and the Spill Response Plan.
2. Staff mobilization	Demonstrate the ability to assemble the spill response organization identified in the ACP and the Spill Response Plan.
3. Ability to operate within the response management system described in the Plan:	
• Unified Command	Demonstrate the ability of the spill response organization to work within a unified command.
• Response management system	Demonstrate the ability of the response organization to operate within the framework of the response management system identified in their respective plans.
4. Discharge control	Demonstrate the ability of the spill response organization to control and stop the discharge at the source.
5. Assessment	Demonstrate the ability of the spill response organization to provide initial assessment of the discharge and provide continuing assessments of the effectiveness of the tactical operations.
6. Containment	Demonstrate the ability of the spill response organization to contain the discharge at the source or in various locations for recovery operations.
7. Recovery	Demonstrate the ability of the spill response organization to recover the discharged product.

8. Protection	Demonstrate the ability of the spill response organization to protect the environmentally and economically sensitive areas identified in the ACP and the respective industry response plan.
9. Disposal	Demonstrate the ability of the spill response organization to dispose of the recovered material and contaminated debris.
10. Communications	Demonstrate the ability to establish an effective communications system for the spill response organization.
11. Transportation	Demonstrate the ability to establish multi-mode transportation both for execution of the discharge and support functions.
12. Personnel support	Demonstrate the ability to provide the necessary support of all personnel associated with response.
13. Equipment maintenance and support	Demonstrate the ability to maintain and support all equipment associated with the response.
14. Procurement	Demonstrate the ability to establish and effective procurement system.
15. Documentation	Demonstrate the ability of the spill response organization to document all operational and support aspects of the response and provide detailed records of decisions and actions taken.

FIGURE A.1-2 - EXERCISE REQUIREMENTS

EXERCISE TYPE	EXERCISE CHARACTERISTICS
Facility/QI notification	• Conducted quarterly. • Safety/PSM Coordinator initiates mock spill notification to QI. • Safety/PSM Coordinator documents time/date of notification, name, and phone number of individual. contacted. • Document in accordance with form in FIGURE A.1-3.
Equipment deployment	• Conducted semiannually if company owns equipment. • Response contractors listed in the plan must participate in annual deployment exercise. • Document in accordance with form in FIGURE A.1-3.
SMT tabletop	• Conducted annually. • Tests SMT?s response activities/responsibilities. • Documents Plan?s effectiveness. • Must exercise worst case discharge scenario once every three years. • Must test all Plan components at least once every three years. • Document in accordance with form in FIGURE

	A.1-3.
Unannounced	• Company will either participate in unannounced tabletop exercise or equipment deployment exercise on an annual basis, if selected. • Company may take credit for participation in government initiated unannounced drill in lieu of drill required by PREP guidelines. • Plan holders who have participated in a PREP government-initiated unannounced exercise will not be required to participate in another one for at least 36 months from the date of the exercise.
Area	• An industry plan holder that participates in an Area Exercise would not be required to participate in another Area Exercise for a minimum of six years.
OTHER EXERCISE CONSIDERATIONS	
Drill program evaluation procedures	• Company conducts post-exercise meetings to discuss positive items, areas for improvement, and to develop action item checklist to be implemented later.
Records of drills	• Company will maintain exercise records for five years following completion of each exercise. • Records will be made available to applicable agencies upon request. • Company will verify appropriate records are kept for each spill response contractor listed in Plan as required by PREP guidelines (annual equipment deployment drill, triennial unannounced drill, etc.).

FIGURE A.1-3 - EMERGENCY RESPONSE OR DRILL FORM

LOCATION NUMBER:	**LOCATION/FACILITY NAME:**	
PIPELINE LOCATION:		**COUNTY/PARISH:**
DATE:	**ATTENDANCE:**	**DRILL LENGTH:**

TYPE OF EXERCISE

☐ ACTUAL ☐ ANNOUNCED ☐ UNANNOUNCED

☐ DEPLOYMENT ☐ NOTIFICATION ☐ TABLETOP ☐ FUNCTIONAL ☐ FULL SCALE

FREQUENCY OF EXERCISE

☐ QUARTER	☐ 1ST	☐ 2ND	☐ 3RD	☐ 4TH
	☐ ANNUAL DRILL		☐ SEMI-ANNUAL DRILL	

PARTICIPANTS

COMPANY/AGENCY	CONTACT PERSON	TIME	PHONE

(IF MORE AGENCIES INVOLVED ATTACH LIST)

EXPLANATION OF SCENARIO:

LESSONS LEARNED:

ANY DEFICIENCIES IDENTIFIED (Page 2) ☐ **YES** ☐ **NO**

IF YES, CHANGES IMPLEMENTED? ☐ **YES** ☐ **NO**

IF NO, ARE ACTION ITEMS ENTERED IN ONLINE ACTION ITEM TRACKING DATABASE FOR FOLLOW UP?

SIGNATURE, INCIDENT COMMANDER/PREPARER

FIGURE A.1-3 - EMERGENCY RESPONSE OR DRILL FORM, CONTINUED

YES	NO	NA	
☐	☐	☐	Notification - Were notification procedures followed and adequate?
☐	☐	☐	Safety Respond - Was the scene approached properly?
☐	☐	☐	Isolate and Deny Entry - Were zones, corridors, and evacuation routes used properly?
☐	☐	☐	Command - Was incident command established and used properly?

- ☐ ☐ ☐ Identification of Material - Was material identified in an appropriate time and manner?
- ☐ ☐ ☐ Assessment/Action Plan - Was written action plan developed and followed?
- ☐ ☐ ☐ Protective Equipment - Was PPE identified and used properly?
- ☐ ☐ ☐ Control - Were control techniques applied appropriately?
- ☐ ☐ ☐ Protective Actions - Were protective actions applied appropriately?
- ☐ ☐ ☐ Decontamination - Waste material(s) disposed of properly?
- ☐ ☐ ☐ Disposal - Waste material(s) disposed of properly?
- ☐ ☐ ☐ Termination - Was the incident terminated at the appropriate time, and all de-briefed?
- ☐ ☐ ☐ Medical - Was medical and/or first aid available and used properly?
- ☐ ☐ ☐ Documentation - Was all documentation gathered?

SIGNATURE, INCIDENT COMMANDER/PREPARER

A.2 TRAINING PROGRAM

FIGURE A.2-1 provides training requirements for spill responders. **FIGURE A.2-2** provides the program matrix. **FIGURE A.2-3** provides a personnel response training log.

FIGURE A.2-1 - TRAINING REQUIREMENTS

TRAINING TYPE	TRAINING CHARACTERISTICS
Training in use of spill response plan	• All field personnel will be trained to properly report/monitor spills. • Plan will be reviewed annually with all employees and contract personnel. • The Personnel Response Training Log is located in **FIGURE A.2-3**.
OSHA training requirements	• All Company responders designated in Plan must have 24 hours of initial spill response training. • Laborers having potential for minimal exposure must have 24 hours of initial oil spill response instruction and eight hours of actual field experience. • Spill responders having potential exposure to hazardous substances at levels exceeding permissible exposure limits must have 40 hours of initial training off-site and 24 hours of actual field experience.

	• On-site management/supervisors required to receive same training as equipment operators/general laborers plus eight hours of specialized hazardous waste management training. • Managers/employees require eight hours of annual refresher training.
Spill Management Team personnel training	• See recommended PREP Training Progam Matrix (FIGURE A.2-2).
Training for casual laborers or volunteers	• Company will not use casual laborers/volunteers for operations requiring HAZWOPER training.
Wildlife	• Only trained personnel approved by USFWS and appropriate state agency will be used to treat oiled wildlife.
Training documentation and record maintenance	• Training activity records will be retained five years for all personnel following completion of training. • Company will retain training records indefinitely for individuals assigned specific duties in the Plan. • Training records will be retained at each facility or pipeline office; Supervisor/Area Manager will document all applicable training.

FIGURE A.2-2 - PREP TRAINING PROGRAM MATRIX

TRAINING ELEMENT	QUALIFIED INDIVIDUAL (QI)	SPILL MANAGEMENT TEAM (SMT)	PIPELINE PERSONNEL
Captain of the Port (COTP) Zones or Environmental Protection Agency (EPA) Regions in which the facility is located.	x	x	x
Notification procedures and requirements for facility owners or operators; internal response organizations; federal and state agencies; and contracted oil spill removal organizations (OSROs) and the information required for those organizations.	x	x	x
Communication system used for the notifications	x	x	x
Information on the products stored, used, or transferred by the facility, including familiarity with the material safety data	x	x	x

sheets (MSDS), special handling procedures, health and safety hazards, spill and fire fighting procedures.			
Procedures the facility personnel may use to mitigate or prevent any discharge or a substantial threat of a discharge of oil resulting from facility operational activities associated with internal or external cargo transfers, storage, or use.	x		
Facility personnel responsibilities and procedures for use of facility equipment which may be available to mitigate or prevent an oil discharge.	x	x	x
Operational capabilities of the contracted OSRO?s to respond small, medium, and large discharges.	x	x	x
Responsibilities and authority of the Qualified Individual (QI) as described in the Spill Response Plan and Company response organization.	x	x	x
The organization structure that will be used to manage the response actions including: • Command and control • Public information • Safety • Liaison with government agencies • Spill response operations • Planning • Logistics support • Finance	x	x	x
The responsibilities and duties of each Spill Management Team (SMT) within the organization structure.	x	x	
The drill and exercise program to meet federal and state regulations as required under Oil Pollution Act of 1990 (OPA 90).	x	x	x
The role of the QI in the post discharge review of the Plan to evaluate and validate its effectiveness.	x		

FIGURE A.2-2 - PREP TRAINING PROGRAM MATRIX, CONTINUED

TRAINING ELEMENT	QUALIFIED INDIVIDUAL (QI)	SPILL MANAGEMENT TEAM (SMT)	PIPELINE PERSONNEL
The Area Contingency Plan (ACP) for the	x	x	x

area in which the facility is located.			
The National Contingency Plan (NCP).	x	x	x
Roles and responsibilities of federal and state agencies in pollution response.	x	x	x
Available response resources identified in the Plan.	x	x	
Contracting and ordering procedures to acquire OSRO resources identified in the Plan.	x	x	
OSHA requirements for worker health and safety (29 CFR 1910.120).	x	x	x
Incident Command System/Unified Command System.	x	x	
Public affairs.	x	x	
Crisis management.	x	x	
Procedures for obtaining approval for dispersant use or in-situ burning of the spill.	x		
Oil spill trajectory analyses.	x		
Sensitive biological areas.	x	x	
This training procedure as described in the Plan for members of the SMT.		x	
Procedures for the post discharge review of the plan to evaluate and validate its effectiveness.		x	
Basic information on spill operations and oil spill clean-up technology including: • Oil containment • Oil recovery methods and devices • Equipment limitations and uses • Shoreline cleanup and protection • Spill trajectory analysis • Use of dispersants, in-situ burning, bioremediation • Waste storage and disposal considerations		x	
Hazard recognition and evaluation.		x	
Site safety and security procedures.		x	
Personnel management, as applicable to designated job responsibilities.		x	

FIGURE A.2-2 - PREP TRAINING PROGRAM MATRIX, CONTINUED

TRAINING ELEMENT	**QUALIFIED INDIVIDUAL** (QI)	**SPILL MANAGEMENT TEAM** (SMT)	**PIPELINE PERSONNEL**
Procedures for directing the deployment and use of spill response equipment, as		x	x

applicable to designated job responsibilities.			
Specific procedures to shut down affected operations.			x
Procedures to follow in the event of discharge, potential discharge, or emergency involving the following equipment or scenarios: • Tank overfill • Tank rupture • Piping or pipeline rupture • Piping or pipeline leak, both under pressure or not under pressure, if applicable • Explosion or fire • Equipment failure • Failure of secondary containment system			x
QI's name and how to contact him or her.			x

FIGURE A.2-3 - PERSONNEL RESPONSE TRAINING LOG

NAME	RESPONSE TRAINING/DATE AND NUMBER OF HOURS	PREVENTION TRAINING/DATE AND NUMBER OF HOURS

APPENDIX B Last Revised: July 2014

CONTRACTOR RESPONSE EQUIPMENT

B.1 COOPERATIVES AND CONTRACTORS

The Company has contracted with additional Oil Spill Removal Organizations (OSROs) to provide personnel and equipment in the event of a spill. The classification, response capabilities, and equipment are described below.

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

The resources will be secured from a Company approved contractor. Area Management will typically handle notification/implementation of these resources. **FIGURE 3.1-4** provides a quick reference to the Oil Spill Removal Organizations and details their response capability and estimated response times. Telephone reference is provided in **FIGURE 3.1-4**.

B.1.1 OSRO Classification

The OSRO classification process was developed by the U.S. Coast Guard (USCG) to provide guidelines to enable USCG and plan preparers to evaluate an OSRO?s potential to respond to oil spills. Plan holders that utilize USCG classified OSRO services are not required to list response resources in their plans.

USCG CLASSIFICATION DEFINITIONS	
• MM - Maximum Most Probable Discharge (MMPD) Classification	Only resources located at equipment sites capable of being mobilized and enroute to the scene of a spill within 2 hours of notification are counted toward M and W1 classifications.
• W1 - Worst Case Discharge Tier 1 Classification	
• W2 - Worst Case Discharge Tier 2 Classification	Any type resource, owned or contracted, dedicated or non-dedicated, is allowed for W2 and W3 classification.
• W3 - Worst Case Discharge Tier 3 Classification	

The following is a listing of the USCG classified and unclassified OSROs within this Zone that may respond to incidents covered by this Plan. For a detailed listing of USCG classified OSROs and other contractors, refer to **FIGURE 3.1-4**.

OSRO	APPLICABLE COTP ZONE(S)	USCG CLASSIFICATIONS								RESPONSE TIME
			Facilities				Vessels			
			MM	W1	W2	W3	MM	W1	W2	W3	
Talon LPE 2901 State Highway 349 Midland TX 79706		River/Canal									0 hour(s)
		Inland									
		Open Ocean									
		Offshore									
		Nearshore									

		Great Lakes									
*Garner Environmental Services 13551 Floyd Circle Dallas Texas 75243	Houston		Facilities				Vessels				11 hour(s)
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓	✓	✓	✓	✓	✓	✓	✓	
		Inland	✓	✓	✓	✓	✓	✓	✓	✓	
		Open Ocean			✓	✓			✓	✓	
		Offshore			✓	✓			✓	✓	
		Nearshore			✓	✓			✓	✓	
		Great Lakes									
*Heritage Environmental Services 5122 East Storey Road Coolidge AZ 85228	San Diego		Facilities				Vessels				9 hour(s)
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal				✓				✓	
		Inland								✓	
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									

* - Classified OSRO

FIGURE B.1-1 - EVIDENCE OF CONTRACTS

- **Garner Environmental Services - Contract**
- **Heritage Environmental Services - Contract**
- **Talon LPE - Contract**
- **Talon LPE - Equipment List**

APPENDIX C Last Revised: April 2008

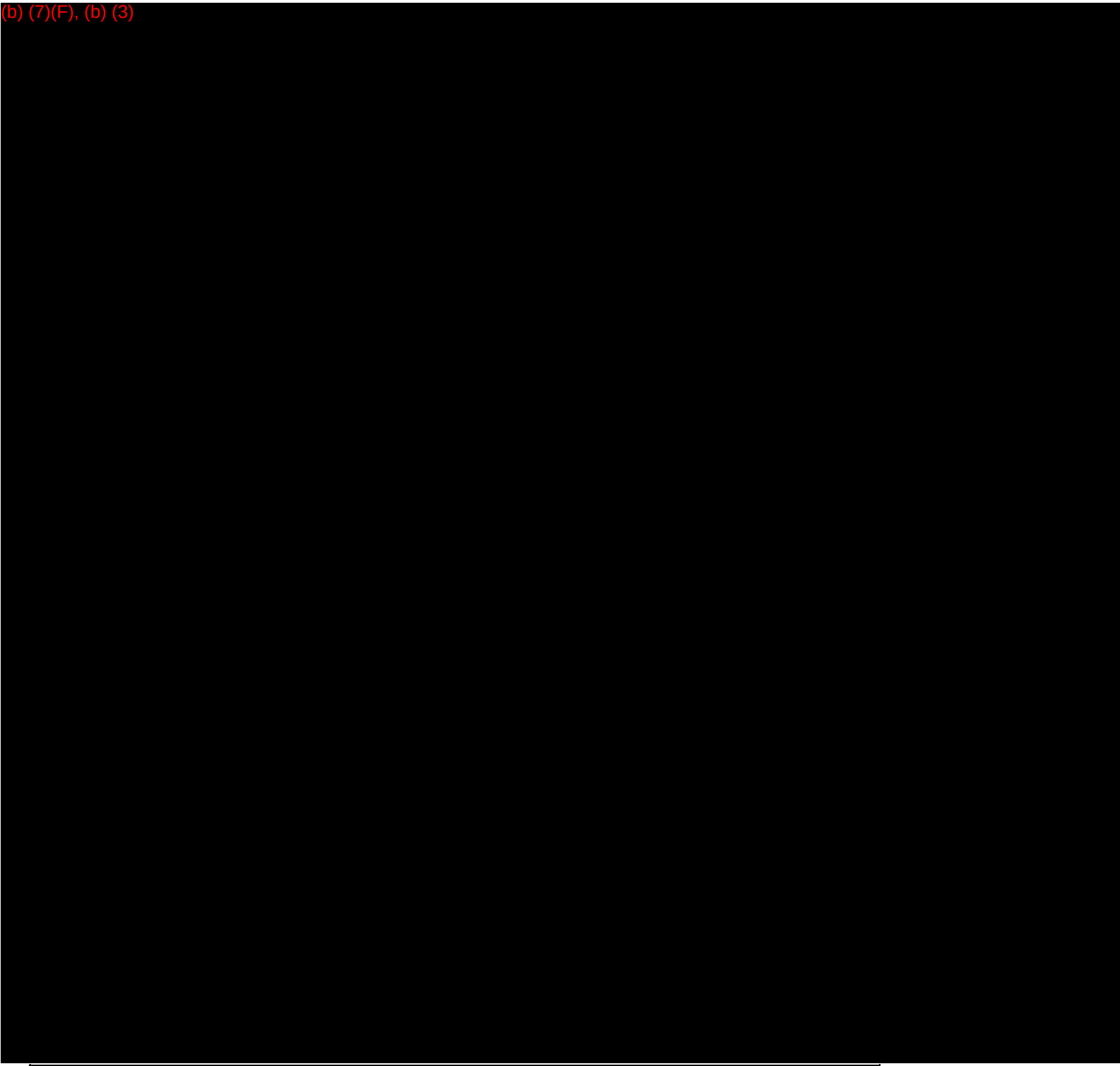
HAZARD EVALUATION AND RISK ANALYSIS

C.1 SPILL DETECTION

(b) (7)(F), (b) (3)

[redacted]

(b) (7)(F), (b) (3)



C.1 **SPILL DETECTION, CONTINUED**

Visual detection by Company personnel

Aerial patrol flights will be made 26 times a year not to exceed 21 days apart. If unable to fly area personnel will walk or drive the right-of-way. The intent of the patrol is to observe the area directly over the pipeline right-of-way for leaks, exposed pipes, washes, missing markers

and other unusual conditions. Construction on either side of the pipeline right-of-way is also monitored.

Discharges to the land or surface waters may also be detected by Company personnel during regular operations and inspections. Should a leak be detected, the appropriate actions are taken including but not limited to:

- Notifications as per **SECTION 3**.
- A preliminary assessment of the incident area.
- If appropriate, initiate initial response actions per SECTION 2.

FIGURE 2-1 provides a checklist for initial response actions.

Visual detection by the public

Right-of-way marker signs are installed and maintained at road crossing and other noticeable points and provide an Operations Control 24-hour number for reporting emergency situations. The Company also participates in the ?call before you dig? or ?One Call? utility notification services which can be contacted to report a leak and determine the owner/operator of the pipeline. If the notification is made to a local office or pump station, the Company representative receiving the call will generally implement the following actions:

- Notify the Pipeline Control and region/designated office.
- Dispatch Company field personnel to the site to confirm discharge and conduct preliminary assessment.
- Notify their immediate supervisor and provide assessment results.

Pipeline shutdown

If any of these situations are outside the expected values, abnormal conditions are considered to exist. If abnormal conditions exist, Pipeline Control will take the appropriate actions to ensure that a release does not occur. If a discharge has occurred, Pipeline Control will take actions to limit the magnitude. In either case, appropriate actions taken by Company personnel could include, but are not limited to:

- Shut down affected line segment if there is an indication of a leak.
- Isolate line segment.
- Depressurize line.
- Start internal and external notifications.
- Mobilize additional personnel, as required.

C.2 WORST CASE DISCHARGE SCENARIO

The equipment and personnel to respond to a spill are available from several sources and are

provided with the equipment and contractors in **SECTION 7** and **APPENDIX B**. The following sections are discussions of these scenarios.

APPENDIX C.4 provides worst case discharge calculations. Discussion of this scenario is as follows:

C.2 WORST CASE DISCHARGE SCENARIO, CONTINUED

Upon discovery of a spill, the following procedures would be followed:

1. The First Responder would notify the Pipeline Control and notifications would be initiated in accordance with **FIGURE 2-1**. Pipeline Control will contact the Qualified Individual.

2. The Qualified Individual would assume the role of Incident Commander until relieved and would initiate response actions and notifications in accordance with **SECTION 2**. If this were a small spill, the local/company personnel may handle all aspects of the response. Among those actions would be to:

    - Conduct safety assessment in accordance with **FIGURE 2-1** and evacuate personnel as needed in accordance with **SECTION 2**.
    - Direct pipeline responders to shut down ignition sources.
    - Direct pipeline personnel to position resources in accordance with **SECTION 2.4**.
    - Complete Preliminary Incident Report Form in accordance with **SECTION 3**.
    - Ensure regulatory agencies are notified.

3. If this were a small or medium spill, the Qualified Individual/Incident Commander may elect for the First Responder to remain the Incident Commander or to activate selected portions of the Spill Management Team. However, for a large spill, the Qualified Individual would assume the role of Incident Commander and would activate the entire Spill Management Team in accordance with activation procedures described in **SECTION 4.2**.

4. The Incident Commander would then initiate spill assessment procedures including surveillance operations, trajectory calculations, and spill volume estimating in accordance with **SECTION 2.3**.

5. The Incident Commander would then utilize checklists in SECTION 4 as a reminder of issues to address. The primary focus would be to establish incident priorities and objectives and to brief staff accordingly.

6. The Spill Management Team would develop the following plans, as appropriate (some of these plans may not be required during a small or medium spill):

    - Site Safety and Health
    - Incident Action

- Disposal
- Site Security
- Decontamination
- Demobilization

Plan templates are included in **SECTION 5**.

7. The response would continue until an appropriate level of cleanup is obtained.

C.3 PLANNING VOLUME CALCULATIONS

Once the worst case discharge volume has been calculated, response resources must be identified to meet the requirements of 49 CFR 194.105(b). Calculations to determine sufficient amount of response equipment necessary to respond to a worst case discharge is described below. A demonstration of the planning volume calculations is provided below.

C.4 SPILL VOLUME CALCULATIONS

DOT/PHMSA portion of pipeline/facilities

The worst case discharge (WCD) for the DOT portion of the pipeline and facilities, as defined in 49 CFR 194.105(b), as the largest volume of the following:

1. The pipeline?s maximum shut-down response time in hours (based on historic discharge data or in the absence of such data, the operators best estimate), multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipeline), plus the largest drainage volume after shutdown of the line section(s) in the response zone expressed in barrels; or

2. The largest foreseeable discharge for the line section(s) within a response zone, expressed in barrels (cubic meters), based on the maximum historic discharge, if one exists, adjusted for any subsequent corrective or preventative action taken; or

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.

Under PHMSA?s current policy, operators are allowed to reduce the worst case discharge volume derived from 49 CFR 194.105(b)(3) by no more than 75% if an operator is taking certain spill prevention measures for their breakout tanks and presents supporting information in the response plan. An operator can reduce the worst case discharge volume based on breakout tanks in the response zones as follows:

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%
Automatic high-level alarms/shutdowns designed according to NFPA/API RP 2350	5%
Testing/cathodic protection designed according to API Std 650/651/653	5%
Tertiary containment/drainage/treatment per NFPA 30	5%*
Maximum allowable credit or reduction	75%

* Note: The facilities do not have tertiary containment.

The worst case discharge for each response zone was based on the largest volume of the three criteria given above.

The line sections with the highest throughput and largest drainage volume between block valves on pump stations were chosen to calculate the pipeline worst case discharge. Although the entire discharge volume of each line was used for the worst case discharge, in an actual spill event, it would take days to drain the line completely. The line would be sealed early in the response effort.

The maximum historic discharge is not applicable for WCD covered by this plan. There are no breakout tanks associated with this pipeline; therefore, breakout tank calculations for WCD are also not applicable for this plan

The worst case discharge for the Rocky Mountain Zone is calculated at Duran - Mesa. The worst case discharge volume is as follows:

(b) (3), (b) (7)(F)

Where:

WCD = worst case discharge (bbl)

DT + ST = maximum detection time + maximum shut down time in adverse weather (generally fifteen minutes except where noted)

(b) (3), (b) (7)(F)

C.5 PIPELINE - ABNORMAL CONDITIONS

Because PHMSA considers the ?substantial threat? term in 49 CFR Part 194.115(a) equivalent to the ?abnormal conditions? term under 49 CFR Part 195.402(d), procedures to identify events

and conditions that can pose a threat of worst case discharge, and actions to take for preventing and mitigating such events and conditions are described in the System Integrity Plan.

C.6 PRODUCT CHARACTERISTICS AND HAZARDS

Pipeline systems described in this plan may transport various types of commodities including but not limited to:

- Natural gasoline
- Naphtha

The key chemical and physical characteristics of each of these oils and/or other small quantity products/chemicals are identified in MSDS. MSDS can be obtained by the facility via fax from the MSDS Hotline (**FIGURE 3.1-4**). Telephone information concerning the potential hazards can also be obtained from the hotline.

FIGURE C.6-1 describes primary oils handled.

FIGURE C.6-1 - SUMMARY OF COMMODITY CHARACTERISTICS

COMMON NAME	MSDS NAME	HEALTH HAZARD	FLASH POINT	SPECIAL HAZARD	REACTIVITY	HEALTH HAZARD WARNING STATEMENT
Natural gasoline	Appropriate product name	1	3	C	0	Long term, repeated exposure may cause cancer, blood, kidney and nervous system damage, and contains benzene.
Naphtha	Appropriate product name	1	3	NA	0	May cause nerve or kidney damage.

Health Hazard	4 = Extremely Hazardous 3 = Hazardous 2 = Warning 1 = Slightly Hazardous 0 = No Unusual Hazard	Fire Hazard (Flash Point)	4 = Below 73? F, 22? C 3 = Below 100? F, 37? C 2 = Below 200? F, 93? C 1 = Above 200? F, 93? C 0 = Will not burn
Special Hazard	A = Asphyxiant C = Contains Carcinogen W = Reacts with Water Y = Radiation Hazard COR = Corrosive OX = Oxidizer	Reactivity Hazard	4 = May Detonate at Room Temperature 3 = May Detonate with Heat or Shock 2 = Violent Chemical Change with High

H_2S = Hydrogen Sulfide P = Contents under Pressure T = Hot Material	Temperature and Pressure 1 = Not Stable if Heated 0 = Stable

APPENDIX D Last Revised: April 2008

CROSS REFERENCE

DOT/PHMSA Cross Reference

DOT/PHMSA CROSS REFERENCE

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION*
Information Summary	
• For the core plan:	
◦ Name and address of operator	Figure 1-3
◦ For each Response Zone which contains one or more line sections that meet the criteria for determining significant and substantial harm (?194.103), listing and description of Response Zones, including county(s) and state(s)	Figure 1-3
• For each Response Zone appendix:	
◦ Information summary for core plan	Section 1
◦ QI names and telephone numbers, available on 24-hr basis	Figures 1-3
◦ Description of Response Zone, including county(s) and state(s) in which a worst case discharge could cause substantial harm to the environment	Section 1
◦ List of line sections contained in Response Zone, identified by milepost or survey station or other operator designation	Figure 1-3
◦ Basis for operator?s determination of significant and substantial harm	Figure 1-3
◦ The type of oil and volume of the worst case discharge	Appendix C
• Certification that the operator has obtained, through contract or other approved means, the necessary private personnel and equipment to respond, to the maximum extent practicable, to a worst case discharge or threat of such discharge	Section 1.3, Appendix B
Notification Procedures	
• Notification requirements that apply in each area of operation of pipelines covered by the plan, including applicable state or local requirements	Section 3
• Checklist of notifications the operator or Qualified Individual is required to make under the response plan, listed in the order of priority	Section 3.1

• Name of persons (individuals or organizations) to be notified of discharge, indicating whether notification is to be performed by operating personnel or other personnel	Section 3.1, Figure 3.1-4
• Procedures for notifying Qualified Individuals	Figure 3.1-1, Figure 4.5-1, Section 4.5
• Primary and secondary communication methods by which notifications can be made	Section 7.1.6

DOT/PHMSA CROSS REFERENCE, CONTINUED

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
• Information to be provided in the initial and each follow-up notification, including the following: ◦ Name of pipeline ◦ Time of discharge ◦ Location of discharge ◦ Name of oil recovered ◦ Reason for discharge (e.g. material failure, excavation damage, corrosion) ◦ Estimated volume of oil discharged ◦ Weather conditions on scene ◦ Actions taken or planned by persons on scene	Figure 3.1-2
Spill Detection and On-Scene Spill Mitigation Procedures	
• Methods of initial discharge detection	Appendix C.1
• Procedures, listed in order of priority, that personnel are required to follow in responding to a pipeline emergency to mitigate or prevent any discharge from the pipeline	Section 2
• List of equipment that may be needed in response activities based on land and navigable waters including: ◦ Transfer hoses and pumps ◦ Portable pumps and ancillary equipment ◦ Facilities available to transport and receive oil from a leaking pipeline	Section 7.1.1, Appendix B
• Identification of the availability, location, and contact phone numbers to obtain equipment for response activities on a 24-hour basis	Figure 3.1-4, Appendix B
• Identification of personnel and their location, telephone numbers, and responsibilities for use of equipment in response activities on	Figure 3.1-4, Appendix B

a 24-hour basis	
Response Activities	
• Responsibilities of, and actions to be taken by, operating personnel to initiate and supervise response actions pending the arrival of the Qualified Individual or other response resources identified in the response plan	Section 2, Section 4.5, Appendix B
• Qualified Individual?s responsibilities and authority, including notification of the response resources identified in the response plan	Section 4.5
• Procedures for coordinating the actions of the operator or Qualified Individual with the action of the OSC responsible for monitoring or directing those actions	Section 4.4, Section 4.5
• Oil spill response organizations (OSRO) available through contract or other approved means, to respond to a worst case discharge to the maximum extent practicable	Appendix B
• For each organization identified under paragraph (d), a listing of: ◦ Equipment and supplies available ◦ Trained personnel necessary to continue operation of the equipment and staff the oil spill removal organization for the first seven days of the response	Appendix B

DOT/PHMSA CROSS REFERENCE, CONTINUED

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
List of Contacts	
• List of persons the Plan requires the operator to contact	Figure 3.1-1
• Qualified individuals for the operator?s areas of operation	Figure 1-3
• Applicable insurance representatives or surveyors for the operator?s areas of operation	Figure 3.1-1
• Persons or organizations to notify for activation of response resources	Figure 3.1-1
Training Procedures	
• Description of training procedures and programs of the operations	Appendix A.2
Drill Procedures	

• Announced and unannounced drills	Appendix A.1
• Types of drills and their frequencies; for example: ◦ Manned pipeline emergency procedures and qualified individual notification drills conducted quarterly ◦ Drills involving emergency actions by assigned operating or maintenance personnel and notification of qualified individual on pipeline facilities which are normally unmanned, conducted quarterly ◦ Shore-based Spill Management Team (SMT) tabletop drills conducted yearly ◦ Oil spill removal organization field equipment deployment drills conducted yearly ◦ A drill that exercises entire response plan for each Response Zone, would be conducted at least once every three years	Appendix A.1
Response Plan review and update procedures	
• Procedures to meet ?194.121	Section 1.2
• Procedures to review plan after a worst case discharge and to evaluate and record the plan?s effectiveness	Section 1.2, Appendix C
Response zone appendices	
Each response zone appendix would provide the following information:	
• Name and telephone number of the qualified individual	Figure 1-3
• Notification procedures	Section 3
• Spill detection and mitigation procedures	Section 2.1, Appendix C
• Name, address, and telephone number of oil spill response organization	Figure 3.1-4, Appendix B
• Response activities and response resources including: ◦ Equipment and supplies necessary to meet ?194.115 ◦ Trained personnel necessary to sustain operation of the equipment and to staff the oil spill response organization and spill management team for the first seven days of the response	Appendix A, Appendix B

DOT/PHMSA CROSS REFERENCE, CONTINUED

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
• Names and telephone numbers of federal, state, and local agencies which the operator expects to assume pollution response	Figure 3.1-4

responsibilities	
• Worst case discharge volume	Appendix C
• Method used to determine the worst case discharge volume, with calculations	Appendix C
• A map that clearly shows: ◦ Location of worst case discharge ◦ Distance between each line section in the Response Zone: ▪ (b) (7)(F), (b) (3) [redacted] ▪ Each potentially affected environmentally sensitive area within a radius of one mile of the line section	Section 6
• Piping diagram and plan-profile drawing of each line section; may be kept separate from the response plan if the location is identified	Figure 1-3, Figure 1-4, Figure 1-5
• For every oil transported by each pipeline in the response zone, emergency response data that: ◦ Include name, description, physical and chemical characteristics, health and safety hazards, and initial spill-handling and firefighting methods ◦ Meet 29 CFR 1910.1200 or 49 CFR 172.602	Appendix C

APPENDIX E Last Revised: April 2008

ACRONYMS AND DEFINITIONS

E.1 ACRONYMS

ACP	Area Contingency Plan
AFFF	Aqueous Film Forming Foam
API	American Petroleum Institute
ASCII	American Standard Code for Information Interchange
ASTM	American Society of Testing Materials
BBL	Barrel(s)
BLM	Bureau of Land Management (USDOI)
BPD	Barrels Per Day
BPH	Barrels Per Hour
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act of 1980, as amended
CFR	Code of Federal Regulations
CO_2	Carbon Dioxide
COTP	Captain of the Port (USCG)
CRZ	Contamination Reduction Zone
CWA	Clean Water Act of 1977 (Federal)
DOT	Department of Transportation
EAP	Emergency Action Plan
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	U. S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERAP	Emergency Response Action Plan
ERP	Emergency Response Plan
ERT	Emergency Response Team
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FOSC	Federal On-Scene Coordinator
FR	Federal Registration
FRP	Facility Response Plan
FRT	Facility Response Team
FWPCA	Federal Water Pollution Control Act of 1972
GAL	Gallons
GIS	Geographic Information System
GPM	Gallons Per Minute

HAZMAT	Hazardous Materials
HMIS	Hazardous Material Information System
IC	Incident Commander

ICS	Incident Command System
JIC	Joint Information Center
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee
LEPD	Local Emergency Planning District
LNG	Liquid Natural Gas
LPG	Liquefied Petroleum Gas
MSDS	Material Safety Data Sheets
MTR	Marine Transportation Related
N/A	Not Applicable
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NIIMS	National Interagency Incident Management System
NM	Nautical Miles
NOAA	National Oceanic and Atmospheric Administration
NPMS	National Pipeline Mapping System
NRC	National Response Center
NRDA	National Resource Damage Assessment
NRT	National Response Team
NSF	National Strike Force
OBA	Oxygen Breathing Apparatus
OPA	Oil Pollution Act of 1990
OPS	Office of Pipeline Safety, U.S. Department of Transportation
OSC	On-Scene Coordinator/Commander
OSHA	Occupational Safety and Health Administration (USDL)
PHMSA	Pipeline Hazardous Material Safety Administration, U.S. Department of Transportation
PPE	Personal Protective Equipment
PREP	(National) Preparedness for Response Exercise Program
QI	Qualified Individual
RCRA	Resource Conservation and Recovery Act of 1976
ROW	Right of Way
RQ	Reportable Quantity

RRC	Regional Response Centers
RRT	Regional Response Team
SARA	Superfund Amendments and Reauthorization Act
SCADA	Supervisory Control and Data Acquisition (System)
SCBA	Self Contained Breathing Apparatus
SDWA	Safe Drinking Water Act of 1986
SERC	State Emergency Response Commission
SETS	Safety Environment and Training Services

SI	Surface Impoundment
SIC	Standard Industrial Classification (Code)
SMT	Spill Management Team
SOSC	State On-Scene Coordinator
SPCC	Spill Prevention, Control, and Countermeasures (Plan)
SSC	Scientific Support Coordinator (NOAA)
UCS	Unified Command System
UEL	Upper Explosive Limit
USACOE	U. S. Army Corps of Engineers
USCG	U. S. Coast Guard
USDOD	U. S. Department of Defense
USDL	U. S. Department of Labor
USDOE	U. S. Department of Energy
USDOI	U. S. Department of the Interior
USDOJ	U. S. Department of Justice
USDOT	U. S. Department of Transportation
USFWS	U. S. Fish and Wildlife Service (USDOI)
USGS	U. S. Geological Survey (USDOI)

E.2 DEFINITIONS

Abandoned Pipeline
A pipeline that is no longer connected to the system and is no longer maintained. The pipeline can be abandoned in place, by removal, or sold.

Adverse Weather
The weather conditions considered by the operator in identifying the response systems and equipment to be deployed in accordance with a response plan, including wave height, ice, temperature, visibility, and currents within the inland or Coastal Response Zone (defined in the

National Contingency Plan (40 CFR part 300)) in which those systems or equipment are intended to function.

Alignment Sheet
A general purpose drawing designed to be used by company personnel during the operation and maintenance of the pipeline.

Barrel
Measure of space occupied by 42 U. S. gallons at 60 degrees Fahrenheit.

Breakout tank means a tank used to:

(1) Relieve surges in an oil pipeline system or

(2) Receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

Coastal Zone
All United States waters subject to the tide, United States waters of the Great Lakes and Lake Champlain, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the National Contingency Plan, and the land surface or land substrate, 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 agreements between the Environmental Protection Agency (EPA) and the U.S. Coast Guard (USCG), and are identified in Federal Regional Contingency Plans and Area Contingency Plans.)

Cold (Support) Zone
An area free of contaminants so that Personal Protection Equipment (PPE) is not required for personnel working in this area. Command functions and supporting operations are carried out here.

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

Communication Equipment
Equipment that will be utilized during response operations to maintain communication between employees, contractors, federal/state/local agencies.

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.

Contamination Reduction Zone
Same as the warm zone, a buffer between the hot and cold zones. Decontamination activities take place there. Equipment needed to support the primary response operation may be staged in the warm zone.

Contingency Plan
A document used by: (1) federal, state, and local agencies to guide planning and response procedures regarding spill 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
Includes:

- A written contract or other legally binding agreement between the operator and a response contractor or other spill response organization identifying and ensuring the availability of the specified personnel and equipment within stipulated response times for a specified geographic area;
- Certification that specified equipment is owned or operated by the pipeline operator, and operator personnel and equipment are available within stipulated response times for a specified geographic area; or
- Active membership in a local or regional oil spill removal organization that has identified specified personnel and equipment to be available within stipulated response times for a specified geographic area.
- For a facility that could reasonably be expected to cause substantial harm to the environment, with the consent of the response contractor or oil spill removal organization, the identification of a response contractor or oil spill removal organization with specified equipment and personnel which are available within stipulated response times in specific geographic areas.

Crude Oil
Liquid petroleum out of the ground, as distinguished from refined oils manufactured from crude oil.

Dispersants
Those chemical agents that emulsify, disperse, or solublize 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 flotation/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.

Environmentally Sensitive Areas
An area of environmental importance which is in or adjacent to navigable waters.

Exclusion Zone
Same as hot zone, the area where a hazard exists. This is the hazardous location on site, therefore entry requires personal protective equipment (PPE). It must be big enough for both mitigation activities and protection of personnel in the warm zone should an explosion, fire, change of wind direction, or an unexpected release occur during response activities.

Explosive Range
Flammable range; the range of the mixture of air and flammable gas or flammable vapor of liquids that must be present in the proper proportions for the mixture to be ignited. The range has upper and lower limits; any mixture above the upper explosive limit or below the lower explosive limit will not burn.

Facilities
Parts of the pipeline system, such as the pipe, valves, compressor stations, etc.

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

First Responders, First Response Agency

A public health or safety agency (i.e., 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.

Flash Point
The temperature at which a liquid fuel gives off sufficient vapor to form an ignitable mixture near its surface.

Foam
A blanket of bubbles that extinguishes fire mainly by smothering. The blanket prevents flammable vapors from leaving the surface of the fire and prevents oxygen from reaching the fuel. The water in the foam also has a cooling effect.

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 EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act; regulated pursuant to Section 311 of the Federal Water Pollution Control Act.

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 Resources 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.

High Volume Area
An area which an oil pipeline having a nominal outside diameter of 20 inches (508 millimeters) or more crosses a major river or other navigable waters, which, because of the velocity of the river flow and vessel traffic on the river, would require a more rapid response in case of a worst case discharge or substantial threat of such a discharge. Appendix B to this part contains a list of some of the high volume areas in the United States.

Hot (Exclusion) Zone
The area where a hazard exists. This is the hazardous location on site, therefore entry requires personal protective equipment (PPE). It must be big enough for both mitigation activities and protection of personnel in the warm zone should an explosion, fire, change of wind direction, or an unexpected release occur during response activities.

Hyperthermia
A dangerously high fever that can damage nerve centers. This condition can result from exposure to excessive heat over an extended period of time.

Ignition Temperature
The lowest temperature at which a fuel will burn without continued application of an ignition source.

Inactive/Idle Pipeline
The pipeline is maintained and can be brought back into service.

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.

Incident Command System
A method by which the response to an extraordinary event, including a spill, is categorized into functional components and responsibility for each component assigned to the appropriate individual or agency.

Inland Area
The area shoreward of the boundary lines defined in 46 CFR part 7, except that in the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines) defined in 33 CFR 80.740-80.850. The inland area does not include the Great Lakes.

Inland Zone
The environment inland of the coastal zone excluding the Great Lakes, Lake Champlain, and specified ports and harbors on inland rivers. (The term inland zone delineates an area of federal responsibilities for response actions. Precise boundaries are determined by agreements between the EPA and the USCG and are identified in Federal Regional Contingency Plans.)

In-Service Pipeline
A pipeline that transports natural gas or hazardous liquid, or is not currently transporting products but is maintained and can be brought back into service.

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.

Interstate Pipeline
A pipeline or part of a pipeline that is used in the transportation of natural gas, hazardous liquid, or carbon dioxide in interstate or foreign commerce across state boundaries.

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

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

- **U. S. Coast Guard (USCG):** Oil and chemically hazardous materials incidents on navigable waters
- **Environmental Protection Agency (EPA):** Oil and chemically hazardous materials incidents on most inland waters and in the inland zone

Lead State Agency
The agency which coordinates state support to Federal and/or Local governments or assumes the lead in the absence of a Federal spill response.

Line Section
A continuous run of pipe that is contained between adjacent pressure pump stations, between a pressure pump station and a terminal or breakout tank, between a pressure pump station and a block valve, or between adjacent block valves.

Lower Flammable Limit
Minimum flammable concentration of a particular gas in the air.

Major River
A river that, because of its velocity and vessel traffic, would require a more rapid response in case of a worst case discharge. For a list of rivers see "*Rolling Rivers, An Encyclopedia of America's Rivers,"* Richard A. Bartlett, Editor, McGraw-Hill Book Company, 1984.

Maximum Extent Practicable
The limits of available technology and the practical and technical limits on a pipeline operator in planning the response resources required to provide the on-water recovery capability and the shoreline protection and cleanup capability to conduct response activities for a worst case discharge from a pipeline in adverse weather.

National Contingency Plan
The plan prepared under the Federal Water Pollution Control Act (33 United States 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.

Navigable Waters
The waters of the United States, including the territorial sea and such waters as lakes, rivers, streams; waters which are used for recreation; and waters from which fish or shellfish are taken and sold in interstate or foreign commerce.

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

- At least 50% of which by volume, distill at a temperature of 340EC (645EF)
- At least 95% of which volume, distill at a temperature of 370EC (700EF)

Non-Petroleum Oil
Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

Oil
Oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, vegetable oil, animal oil, sludge, oil refuse, oil mixed with wastes other than dredged spoil.

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 Removal Organization (OSRO)
An entity that provides response resources.

One-Call
Service to notify underground utilities of planned excavations.

On-Scene Coordinator (OSC)
The federal official designated by the Administrator of the EPA or by the Commandant of the USCG to coordinate and direct federal response under subpart D of the National Contingency Plan (40 CFR part 300).

Onshore Oil Pipeline Facilities
New and existing pipe, rights-of-way and any equipment, facility, or building used in the transportation of oil located in, on, or under, any land within the United States other than submerged land.

Operator
A person or firm who operates a pipeline system and engages in the transportation of gas or hazardous liquid. The operator may or may not also be the owner of the pipeline system.

Operating Area
The rivers and canals, inland, nearshore, Great Lakes, or offshore geographic location(s) in which a facility is handling, storing, or transporting oil.

Operating Environment
Rivers and canals, inland, Great Lakes, or ocean. These terms are used to define the conditions in which response equipment is designed to function.

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:

- Group II - specific gravity less than .85
- Group III - specific gravity between .85 and less than .95
- Group IV - specific gravity .95 to and including 1.0
- Group V - specific gravity greater than 1.0

Petroleum
Crude oil, condensate, natural gasoline, natural gas liquids, and liquefied petroleum gas.

Petroleum Product
Flammable, toxic, or corrosive products obtained from distilling and processing crude oil, unfinished oils, natural gas liquids, blend stocks, and other miscellaneous hydrocarbon

compounds.

Pipeline
All parts of an onshore pipeline facility through which oil moves including, but not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

Pipeline Corridor
A linear area where two or more pipelines (either part of the same or different pipeline systems) are closely grouped in a single right-of-way. Pipeline corridors pose a cartographic challenge, and NPMS handles them differently on hard-copy and digital maps. On hard-copy maps, a single line with multiple annotations may represent pipeline corridors. In digital files, multiple lines are required, and operators should separate them into individual layers or files.

Pipeline Crossing
A point where two or more pipelines cross, but where there is no physical connection between the pipelines. Pipeline segments should not be broken at pipeline crossings.

Pipeline Intersection
A point where a physical connection between two pipelines occurs. A commodity from one pipeline can flow into another pipeline(s), either a branch within a pipeline system or a connection between two pipeline systems.

Pipeline Segment
A linear feature representing part or all of a pipeline system on a digital or hard-copy map. A pipeline segment must have only two ends. No branches are allowed. A pipeline segment may be a straight line or may have any number of vertices. Each pipeline segment must be uniquely identified. The number of pipeline segments should be kept to the minimum needed to represent a pipeline system and its associated attributes. When submitting hard-copy maps, the beginning and ending points of each pipeline segment should be marked with a clear, visible dot. When submitting digital geospatial data, a unique line segment in the computer-aided drafting (CAD) or GIS data set should represent each pipeline segment

Pipeline System
All parts of a major natural gas transmission line or hazardous liquid trunkline through which gas or hazardous liquid is transported. By definition, only one firm can operate a pipeline system. Operators should assign unique names to each of their pipeline systems. A pipeline system may have an unlimited number of branches. Each pipeline system must be represented by one or more pipeline segments.

Primary Response Contractor(s)
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(s)
An English-speaking representative of an operator, located in the United States, available on a 24-hour basis, with full authority to: activate and contract with required oil spill removal organization(s); activate personnel and equipment maintained by the operator; act as liaison with the OSC; and obligate any funds required to carry out all required or directed oil response activities. This includes:

Activating and engaging in contracting with identified oil spill removal organization(s)

- Acting as a liaison with the predesignated of Federal On-Scene Coordinator (FOCS)
- Obligating, either directly or through prearranged contracts, funds required to carry out all necessary or directed response activities

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.

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 the environment.

Response Area
The inland zone or coastal zone, as defined in the National Contingency Plan (40 CFR part 300), in which the response activity is occurring.

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 Plan
The operator's core plan and the response zone appendices for responding, to the maximum extent practicable, to a worse case discharge of oil, or the substantial threat of such a discharge.

Response Resources
The personnel, equipment, supplies, and other resources necessary to conduct response activities.

Response Zone
A geographic area either along a length of pipeline or including multiple pipelines, containing one or more adjacent line sections, for which the operator must plan for the deployment of, and provide, spill response capabilities. The size of the zone is determined by the operator after considering available capability, resources, and geographic characteristics.

Retired Pipeline
A pipeline that is still connected to the system but has been taken out of service and is no longer maintained. The operator plans to abandon the pipeline and is waiting for approval.

Right-of-Way
a section of land designated for use by a pipeline. The NPMS refers to ROWs as pipeline corridors.

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

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.

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.

Specified Minimum Yield Strength
The minimum yield strength, expressed in pounds per square inch, prescribed by the specification under which the material is purchased from the manufacturer.

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

Spontaneous Ignition
A fire that occurs without a flame, spark, hot surface, or other outside source of ignition.

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 Reauthorization Act of 1986 (SARA). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local Emergency Response Plans.

Static Electricity
Charges of electricity accumulated on opposing and usually moving surfaces having negative and positive charges, respectively. A hazard exists where the static potential is sufficient to discharge a spark in the presence of flammable vapors or combustible dusts.

Stress Level
The level of tangential or hoop stress, usually expressed as a percentage of specified minimum yield strength.

Support Zone
Same as cold zone, an area free of contaminants so that personal protection equipment (PPE) is not required for personnel working in this area. Command functions and supporting operations are carried out here.

Unified Command
The method by which local, state, and federal agencies 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

Warm (Contamination Reduction) Zone
A buffer between the hot and cold zones. Decontamination activities take place there. Equipment needed to support the primary response operation may be staged in the warm zone.

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.

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 of oil, including a discharge from fire or explosion, in adverse weather conditions. This volume will be determined by each pipeline operator for each response zone and is calculated according to ? 194.105.

LINK FILES

TECHNICAL RESPONSE PLANNING CORPORATION

1995 ✧ 2005
10 YEARS OF EXCELLENCE

June 4, 2008

Ms. Barber
Response Plans Officer, Pipeline and Hazardous Material Safety
U.S. Department of Transportation
1200 New Jersey Avenue SE - Room E22-210
Washington, D.C. 20590

RE: RSPA Sequence Number 1638 Rocky Mountain Zone Spill Response Plan

Dear Ms. Barber:

Enclosed are two CD's with revisions to the aforementioned plan for your review and approval. The revisions include the addition of the Dollarhide pipeline. If you have any questions regarding the enclosed, please contact Clayton Roesler, Remediation Manager, at (713) 803-5470, or Enterprise Products Operating, L.P. 2727 North Loop West, Houston, TX 77210.

Sincerely,
TECHNICAL RESPONSE PLANNING CORPORATION

Gregory Desmond
Senior Project Manager

Enclosures
Federal Express

cc: Clayton Roesler

9720 Cypresswood Drive # 340•Houston, Texas 77070•Office: (281) 955-9600•Fax: (281) 955-0369•E-mail: info@trpcorp.com•Internet:www.trpcorp.com

9720 Cypresswood Drive # 340•Houston, Texas 77070•Office: (281) 955-9600•Fax: (281) 955-0369•E-mail: info@trpcorp.com•Internet:www.trpcorp.com

TECHNICAL RESPONSE PLANNING CORPORATION

QUALITY SERVICES SINCE 1995

September 12, 2011

Ms. Barber
Response Plans Officer, Pipeline and Hazardous Material Safety
U.S. Department of Transportation
1200 New Jersey Avenue SE - Room E22-210
Washington, D.C. 20590

RE: PHMSA Sequence Number (1638): Rocky Mountain Zone Spill Response Plan

Dear Ms. Barber:

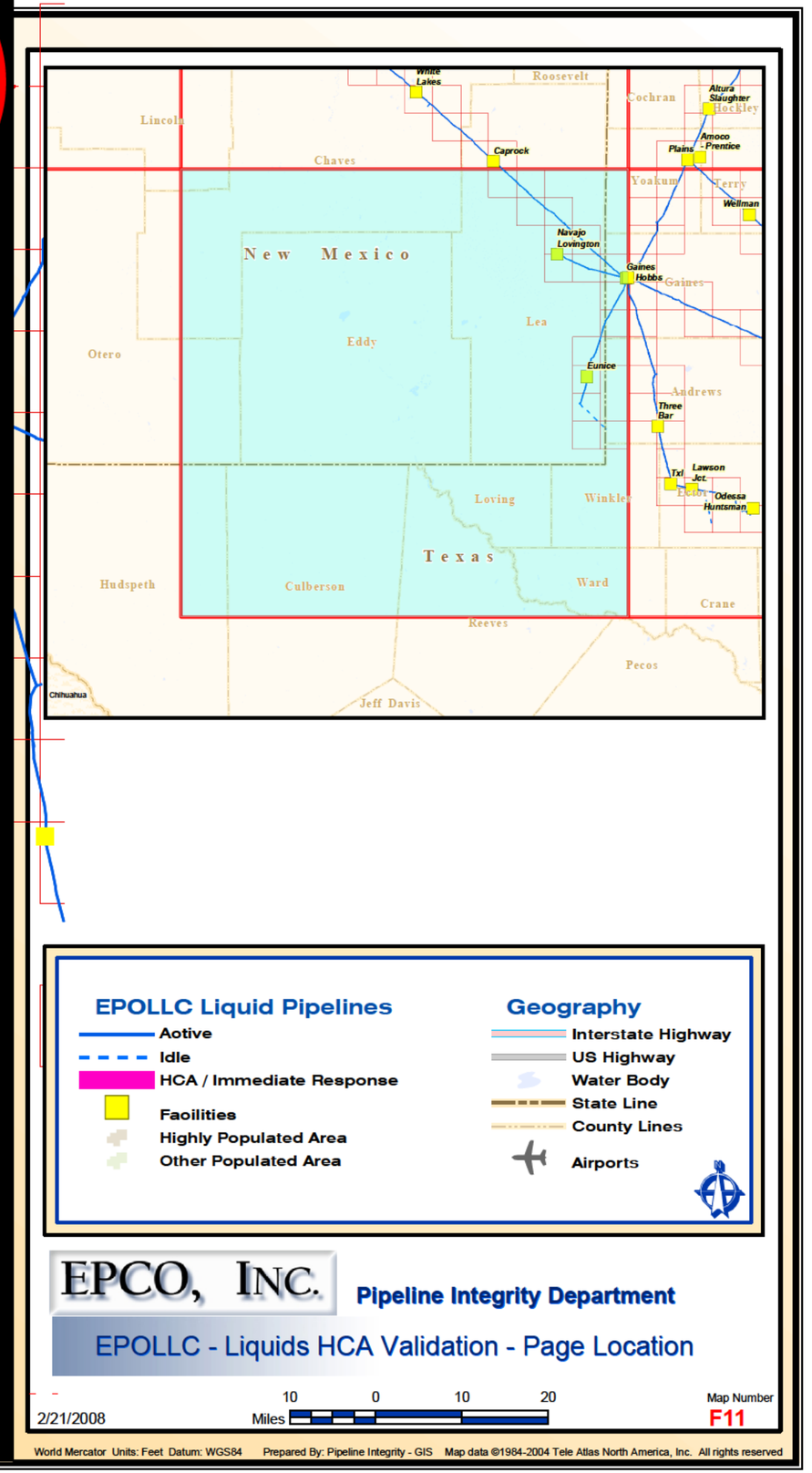
Enclosed are two revised CD's for the Enterprise Products Operating LLC - Rocky Mountain Zone Spill Response Plan. The revision includes updated personnel and Qualified Individuals. If you have any questions regarding the enclosed, please contact Shiver Nolan (713) 381-6595, Enterprise Products Operating, PO Box 4324, Houston, Texas, 77210.

Sincerely,
TECHNICAL RESPONSE PLANNING CORPORATION

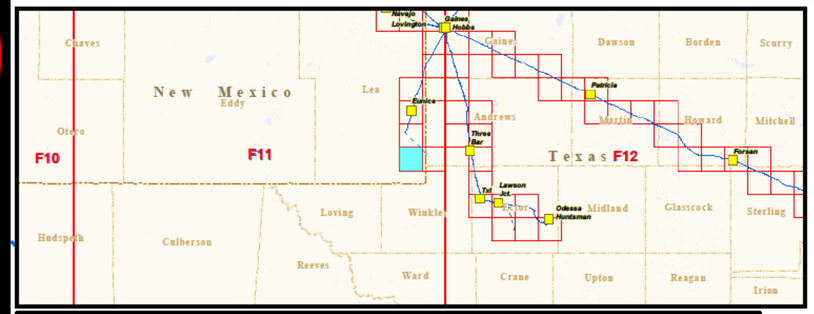
Greg Desmond
Senior Project Manager

Enclosures
Federal Express

(b) (3), (b) (7)(F)


White Lakes
Roosevelt
Cochran
Altura Slaughter
Hockley
Lincoln
Caprock
Amoco - Prentice
Plains
Chaves
Yoakum
Terry
Wellman
Navajo Lovington
New Mexico
Gaines Hobbs
Gaines
Lea
Eddy
Otero
Eunice
Andrews
Three Bar
Txl
Lawson Jct.
Odessa Huntsman
Loving
Winkler
Texas
Hudspeth
Culberson
Ward
Crane
Reeves
Pecos
Chihuahua
Jeff Davis
EPOLLC Liquid Pipelines
Aotive
Idle
HCA / Immediate Response
Faoilities
Highly Populated Area
Other Populated Area
Geography
Interstate Highway
US Highway
Water Body
State Line
County Lines
Airports
EPCO, INC.
Pipeline Integrity Department
EPOLLC - Liquids HCA Validation - Page Location
2/21/2008
10 0 10 20
Miles
Map Number
F11
World Mercator Units: Feet Datum: WGS84
Prepared By: Pipeline Integrity - GIS
Map data ©1984-2004 Tele Atlas North America, Inc. All rights reserved

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
710	6.625	Dollarhide Lateral - Jal Injection to Dollarhide Injection	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

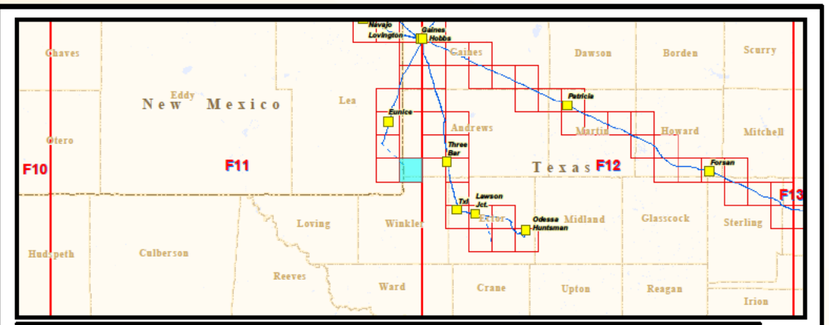
/20/2008

1 0 1 2
Miles

Map Number
F11_0111

orld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
710	6.625	Dollarhide Lateral - Jal Injection to Dollarhide Injection	Enterprise Products Operating LLC
714	4.5	Dollarhide Injection	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

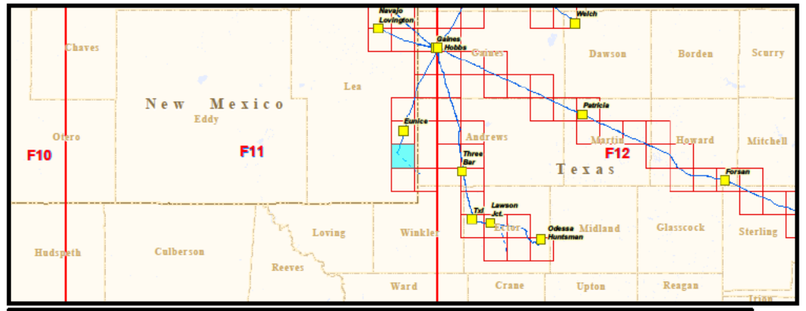
EPOLLC - Liquids HCA Validation

2/20/2008

Miles 1 0 1 2

Map Number
F11_0112

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
710	6.625	Dollarhide Lateral - Jal Injection to Dollarhide Injection	Enterprise Products Operating LLC
710	6.625	Dollarhide Lateral - Texaco-Eunice to Jal Injection	Enterprise Products Operating LLC
711	4.5	Jal Injection	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

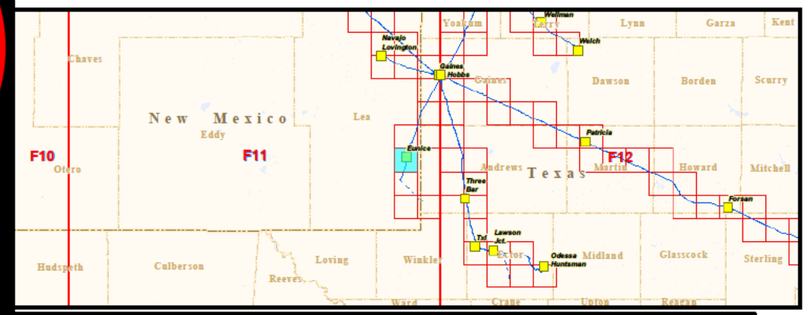
2/20/2008

Miles 1 0 1 2

Map Number
F11_0127

World Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
710	6.625	Dollarhide Lateral - Texaco-Eunice to Jal Injection	Enterprise Products Operating LLC
712	3.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC
712	4.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

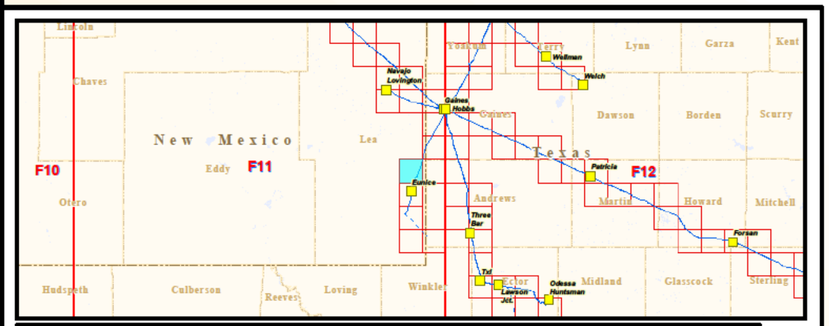
EPOLLC - Liquids HCA Validation

20/2008

1 0 1 2
Miles

Map Number
F11_0143

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
712	4.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

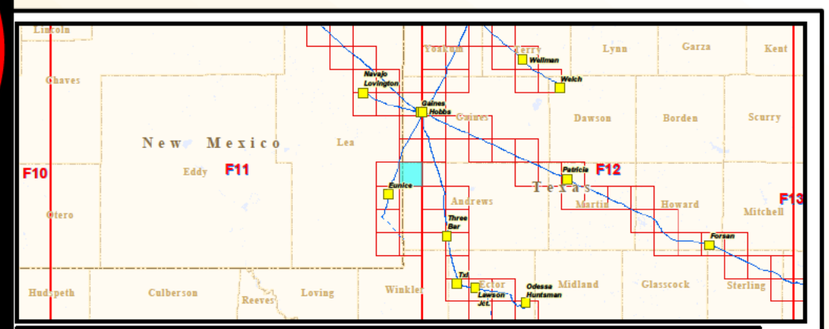
EPOLLC - Liquids HCA Validation

2/20/2008

Miles 1 0 1 2

Map Number
F11_0159

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
712	4.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

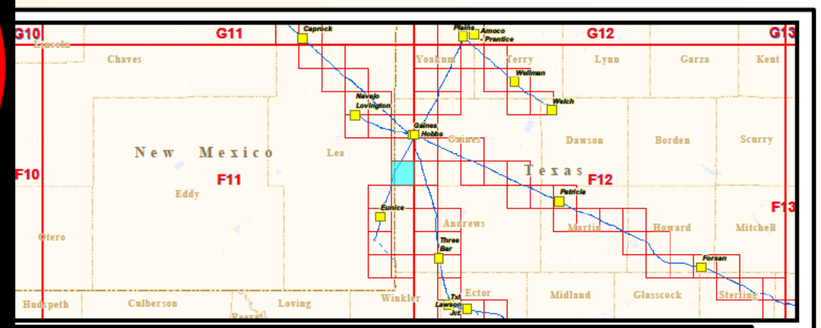
/20/2008

Miles 1 0 1 2

Map Number F11_0160

World Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
712	4.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

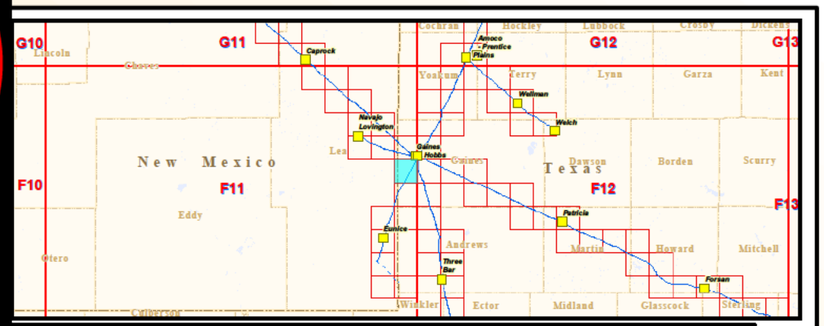
20/2008

1 0 1 2
Miles

Map Number
F11_0176

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
712	4.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

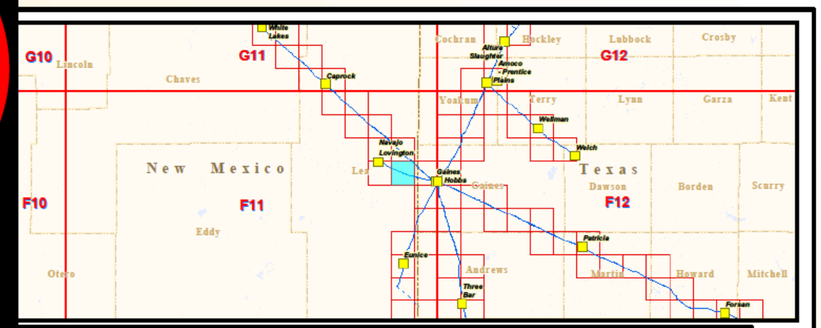
/20/2008

1 0 1 2
Miles

Map Number
F11_0192

rld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
18	8.625	Hobbs to Ponderosa Jct. 8"	Enterprise Products Operating LLC
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
01	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
19	4.5	Hobbs Lateral Loop 4"	Enterprise Products Operating LLC
20	6.625	Navajo-Lovington Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

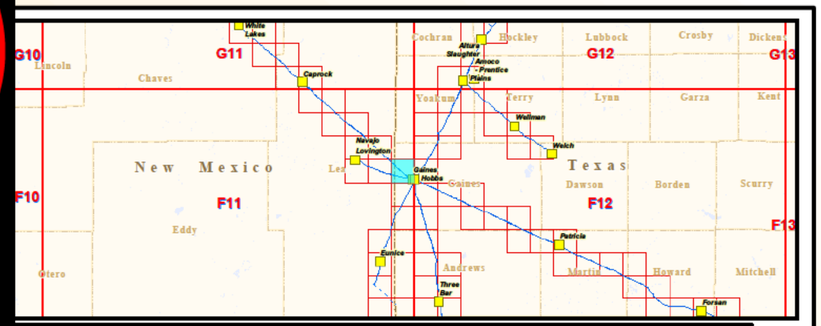
EPOLLC - Liquids HCA Validation

0/2008

1 0 1 2 Miles

Map Number
F11_0207

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
1	14	Seminole Mainline	Enterprise Products Operating LLC
50	14	Seminole Loop	Enterprise Products Operating LLC
518	8.625	Hobbs to Ponderosa Jct. 8"	Enterprise Products Operating LLC
595	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
712	4.5	Dollarhide Lateral Loop 4" EP	Enterprise Products Operating LLC
719	4.5	Hobbs Lateral Loop 4"	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

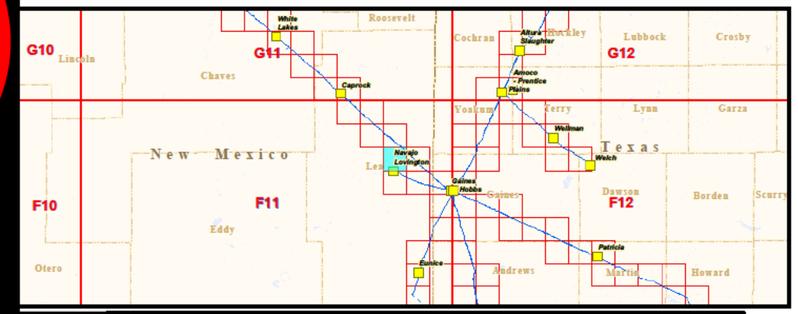
20/2008

1 0 1 2
Miles

Map Number
F11_0208

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

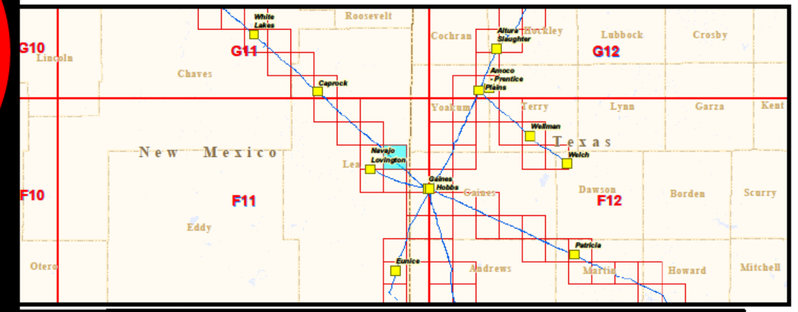
0/2008

1 0 1 2
Miles

Map Number
F11_0222

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

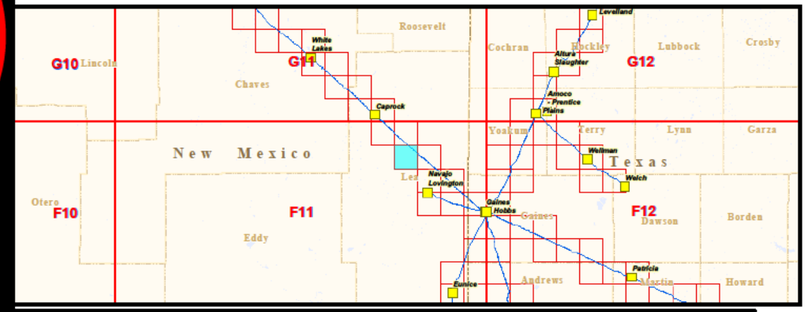
0/2008

Miles 1 0 1 2

Map Number
F11_0223

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

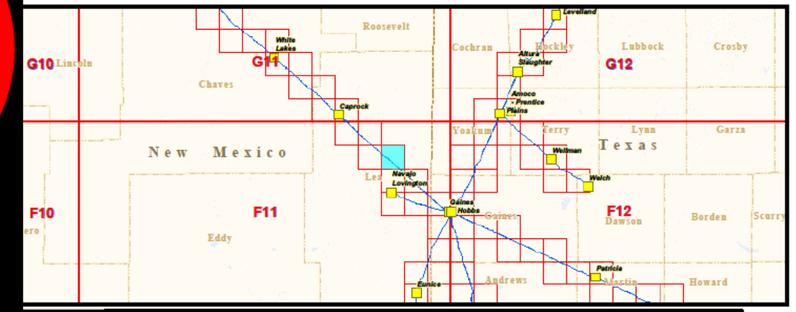
EPOLLC - Liquids HCA Validation

20/2008

1 0 1 2
Miles

Map Number
F11_0237

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

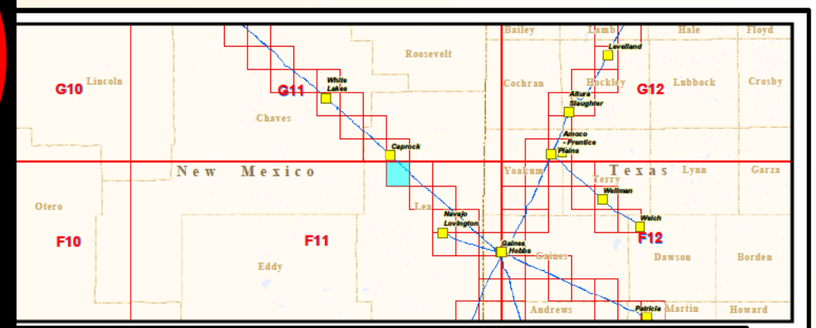
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number
F11_0238

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
41	16	Segment 13	Enterprise Products Operating LLC
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

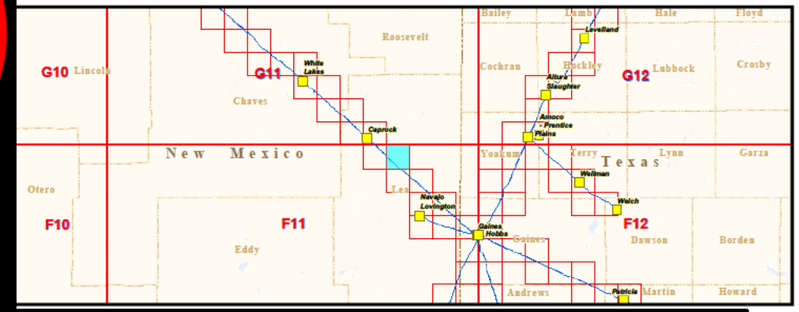
0/2008

1 0 1 2
Miles

Map Number
F11_0252

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

0/2008

1 0 1 2
Miles

Map Number
F11_0253

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

February 15, 2005

Certified Mail –7003 3110 0003 2602 8996-Return Receipt Requested

Mr. Alvaro J. Parro, Ph.D
Environmental Manager
Enterprise Products Operating, L.P.
2727 North Loop West
P.O. Box 4324
Houston, TX 77210-4324

Re: RSPA Sequence Number 1638 (Rocky Mountain Zone)

Dear Mr. Parro,

The Research and Special Programs Administration (RSPA) has received the January 10, 2005 revision of your Facility Response Plan (FRP) referenced above with your letter dated February 4, 2005. You submitted this revision to address the findings in our review (RSPA letter dated November 9, 2004). We will review the revision to determine whether the revised plan fully satisfy the planning standards established by 49 CFR Part 194, *Response Plans for Onshore Oil Pipelines*.

After we complete the review, we will notify you of any remaining deficiencies for you to correct to bring the plan into full compliance. If there are no deficiencies, we will approve the plan for five years.

Please refer to the "RSPA Plan Sequence Number" listed above in all plan-related correspondence, including e-mails. E-mail is the preferred method for submitting inquiries, questions and comments to me at le.herrick@rspa.dot.gov. You can also telephone me at (202) 366-5523 or fax me at (202) 366-4566. Thank you for your cooperation.

Sincerely,

L. E. Herrick
Response Plans Officer

(b) (7)(F), (b) (3)

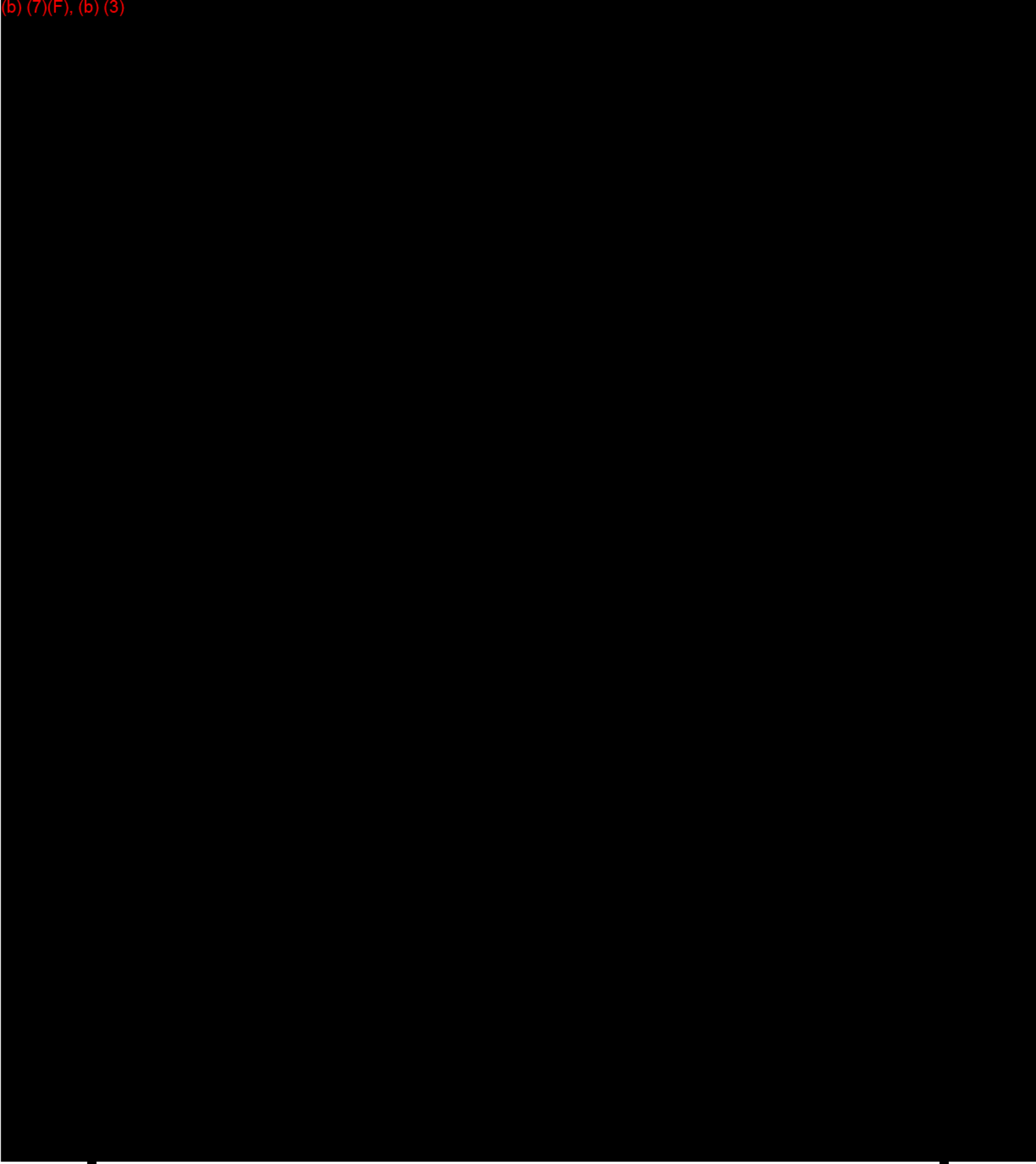


FIGURE 1-5 - Rocky Mountain Zone Map

N
W E
S

50 0 50 Miles

LEGEND

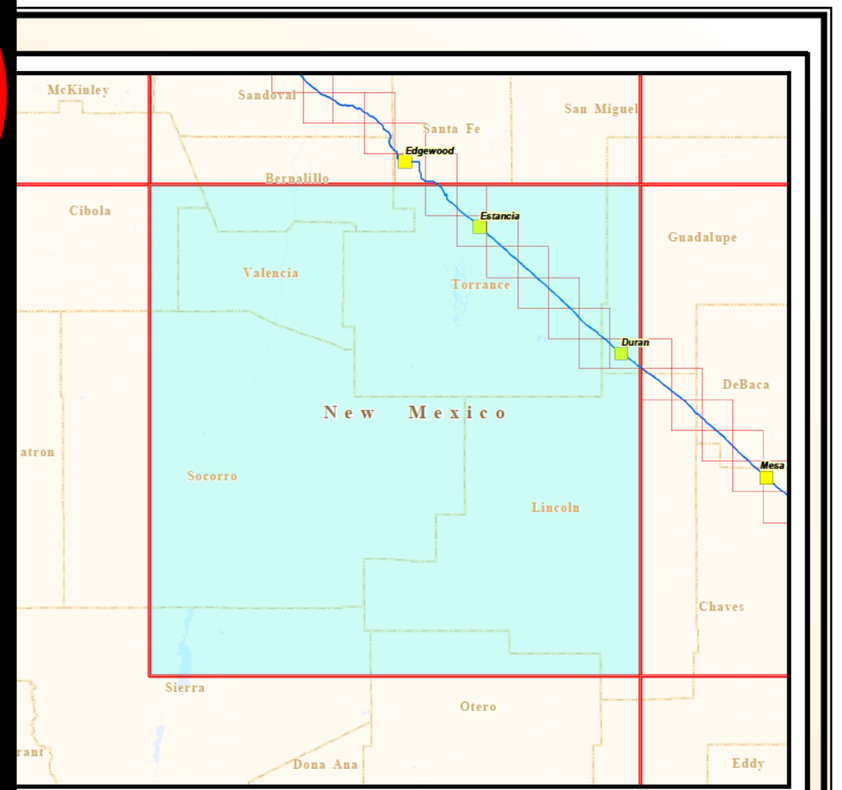
- Counties
- 1:100,000 Quads
- Interstate
- USA's High Population Areas
- Pipeline
- Terminal
- Station
- Other

TECHNICAL RESPONSE PLANNING CORPORATION
www.trpcorp.com | (281) 955-9600

Enterprise.apr

July 2007

(b) (3), (b) (7)(F)



EPOLLC Liquid Pipelines

- Aotive
- Idle
- HCA / Immediate Response
- Faoilities
- Highly Populated Area
- Other Populated Area

Geography

- Interstate Highway
- US Highway
- Water Body
- State Line
- County Lines
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation - Page Location

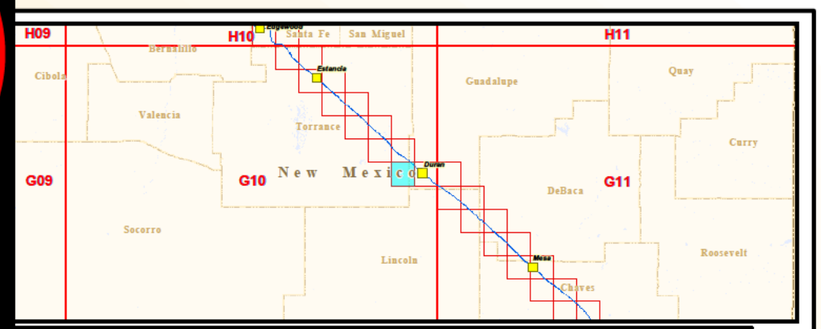
1/2008

10 0 10 20 Miles

Map Number **G10**

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
595	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

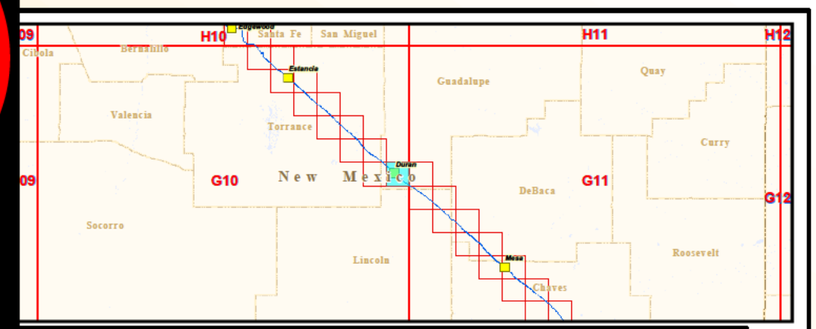
EPOLLC - Liquids HCA Validation

20/2008 Miles 1 0 1 2

Map Number G10_0175

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

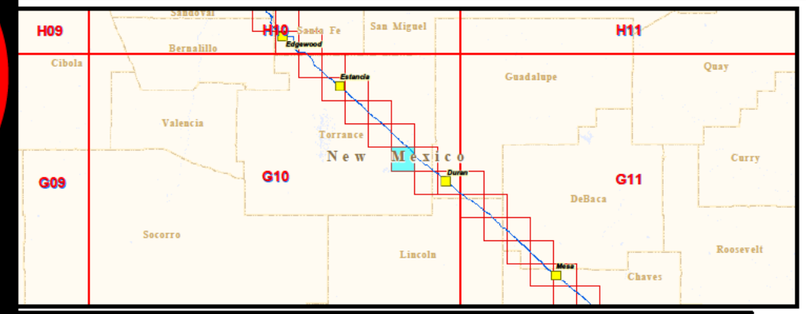
0/2008

1 0 1 2
Miles

Map Number
G10_0176

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
38	16	Segment 10	Enterprise Products Operating LLC
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

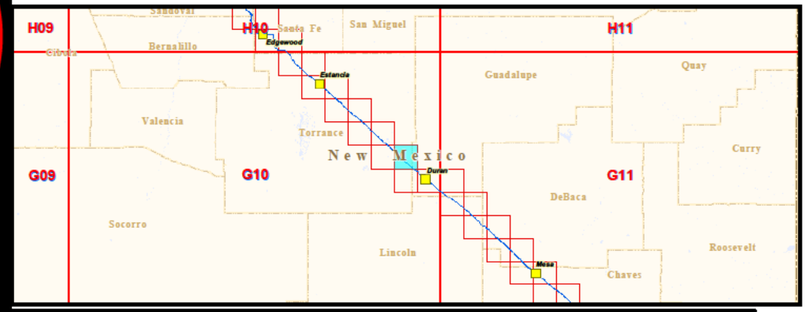
0/2008

1 0 1 2 Miles

Map Number **G10_0190**

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
138	16	Segment 10	Enterprise Products Operating LLC
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

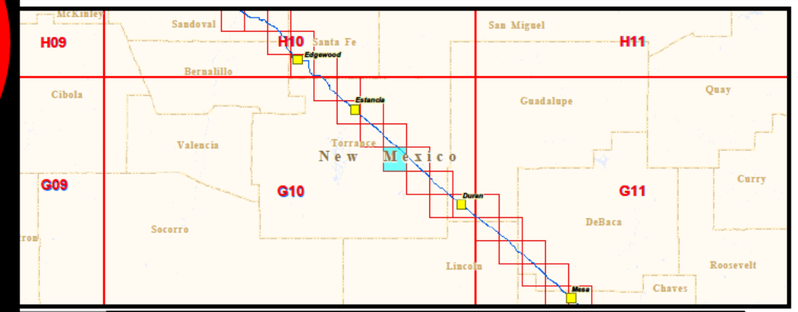
/20/2008

1 0 1 2
Miles

Map Number
G10_0191

rld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
8	16	Segment 10	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

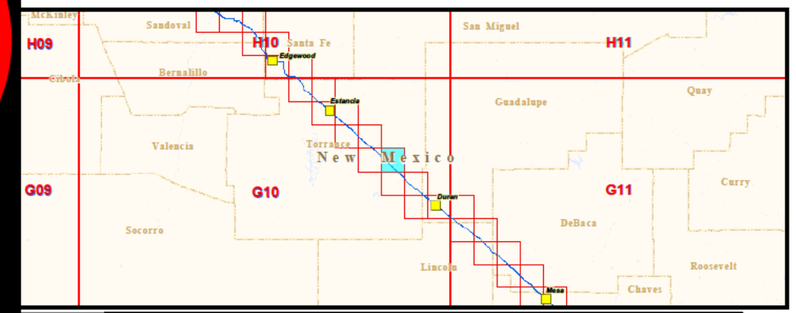
0/2008

Miles 1 0 1 2

Map Number
G10_0205

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
8	16	Segment 10	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

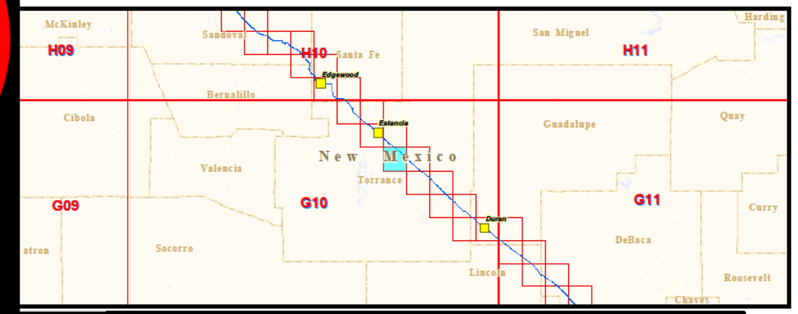
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **G10_0206**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
8	16	Segment 10	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

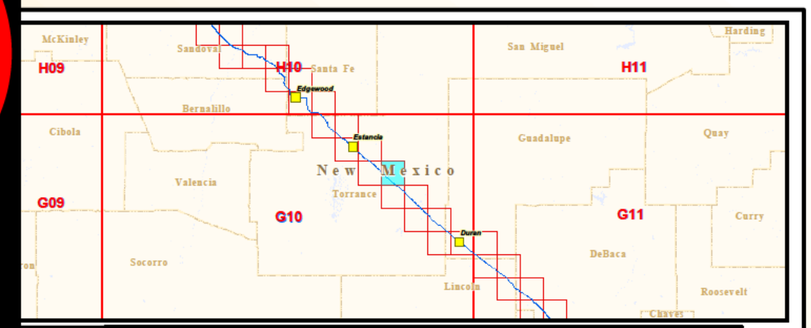
0/2008

1 0 1 2 Miles

Map Number **G10_0220**

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
8	16	Segment 10	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

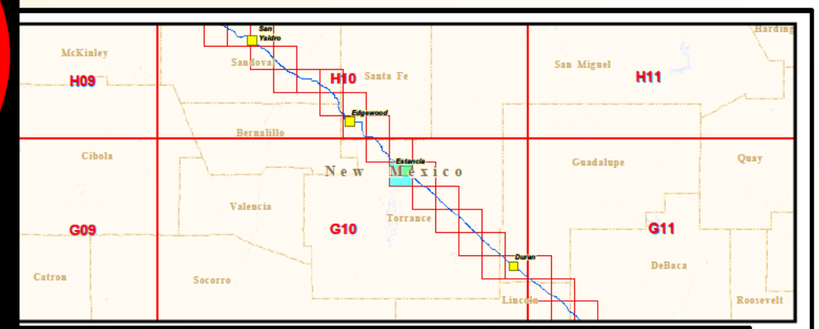
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **G10_0221**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
38	16	Segment 10	Enterprise Products Operating LLC
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

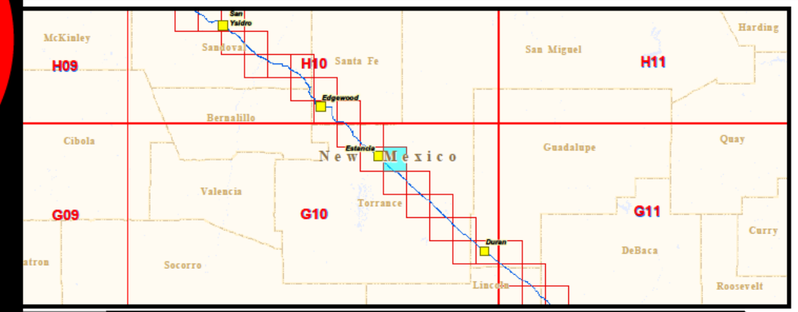
EPOLLC - Liquids HCA Validation

0/2008 Miles 1 0 1 2

Map Number G10_0235

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
8	16	Segment 10	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

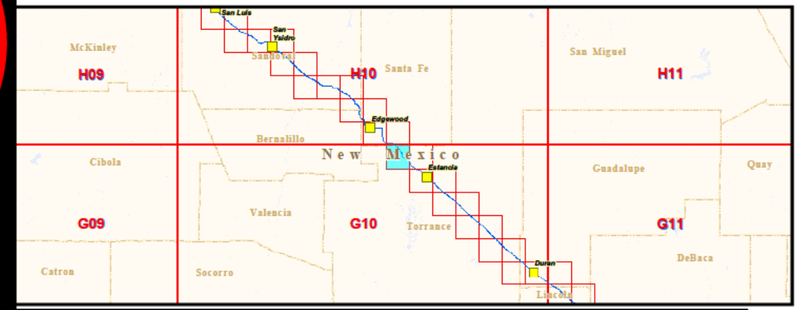
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number G10_0236

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

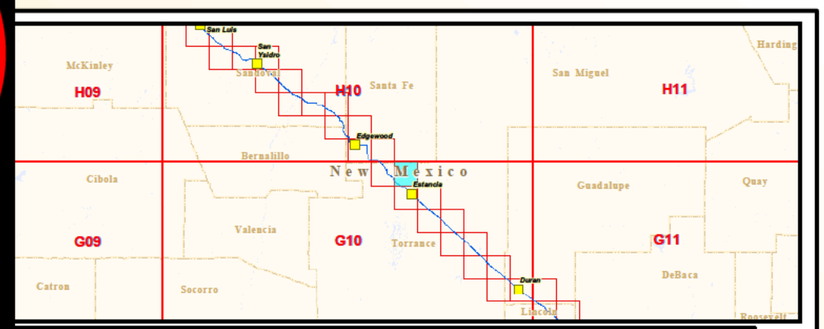
0/2008

1 0 1 2
Miles

Map Number
G10_0250

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

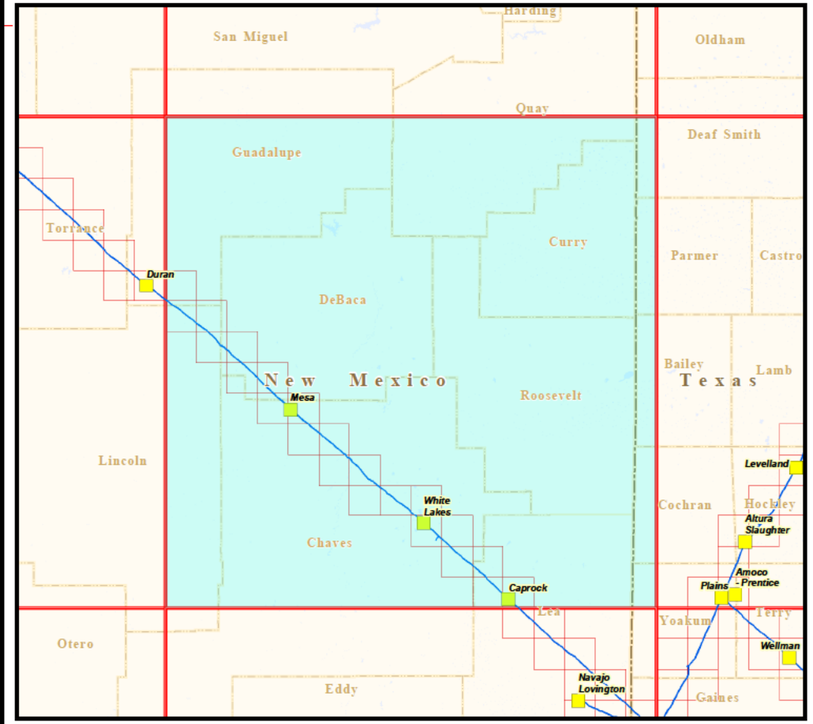
20/2008

1 0 1 2
Miles

Map Number
G10_0251

Id Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



EPOLLC Liquid Pipelines

- Aotive
- Idle
- HCA / Immediate Response
- Faoilities
- Highly Populated Area
- Other Populated Area

Geography

- Interstate Highway
- US Highway
- Water Body
- State Line
- County Lines
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation - Page Location

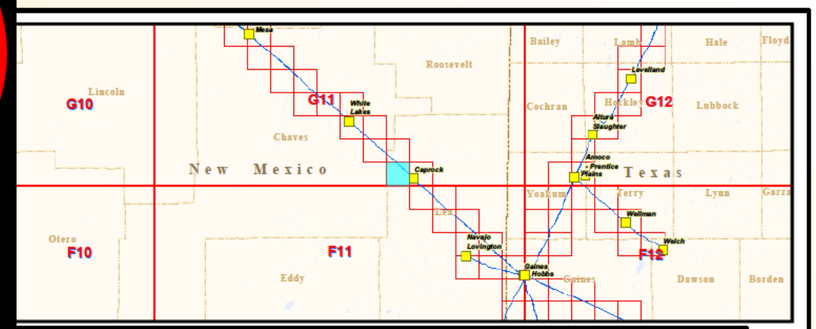
2/21/2008

10 0 10 20 Miles

Map Number **G11**

World Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

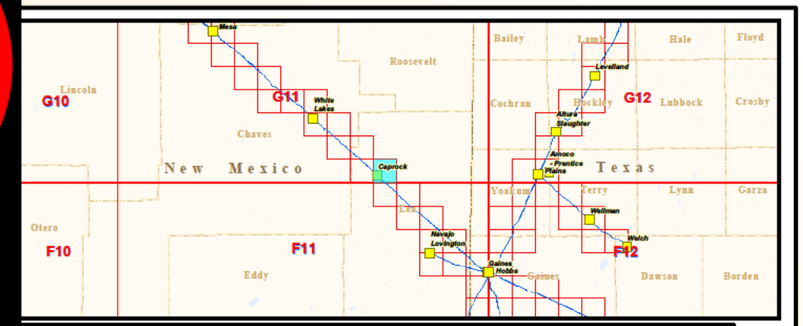
0/2008

1 0 1 2
Miles

Map Number
G11_0011

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	0	Segment 13 4" Fuel Line	Enterprise Products Operating LLC
	16	Segment 13	Enterprise Products Operating LLC
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

PCO, INC. **Pipeline Integrity Department**

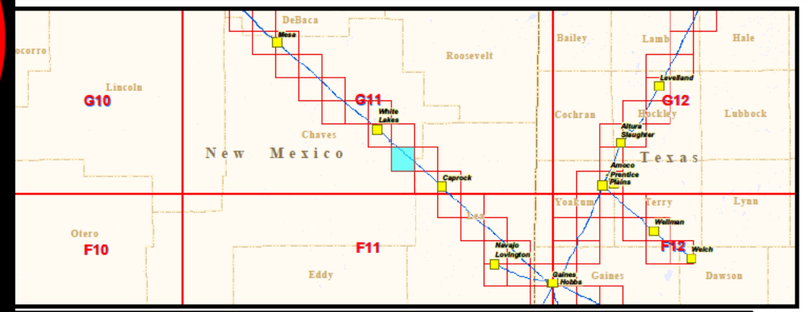
EPOLLC - Liquids HCA Validation

2008 Miles 1 0 1 2

Map Number **G11_0012**

rcator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
595	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

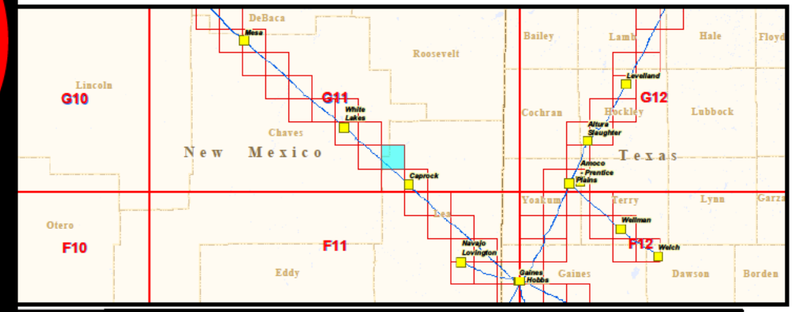
EPOLLC - Liquids HCA Validation

20/2008

1 0 1 2
Miles

Map Number
G11_0026

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

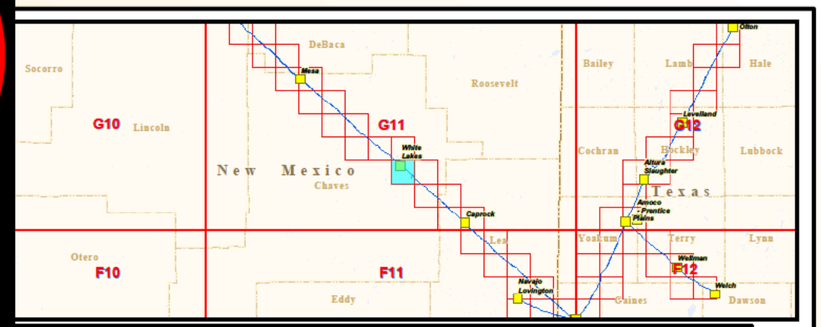
0/2008

Miles 1 0 1 2

Map Number
G11_0027

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
595	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
737	4.5	Kennedy White Ranch	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

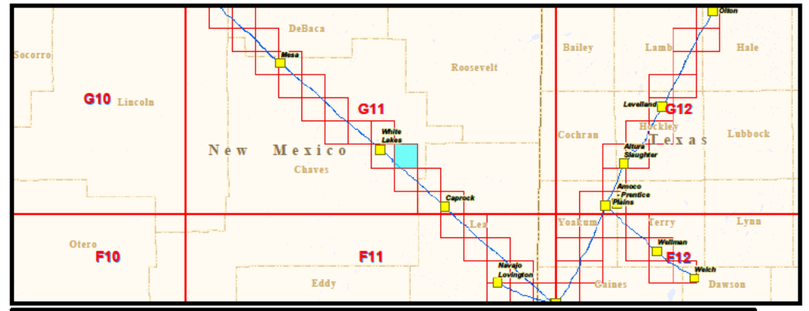
20/2008

1 0 1 2
Miles

Map Number
G11_0041

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - Hobbs to White Lakes	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

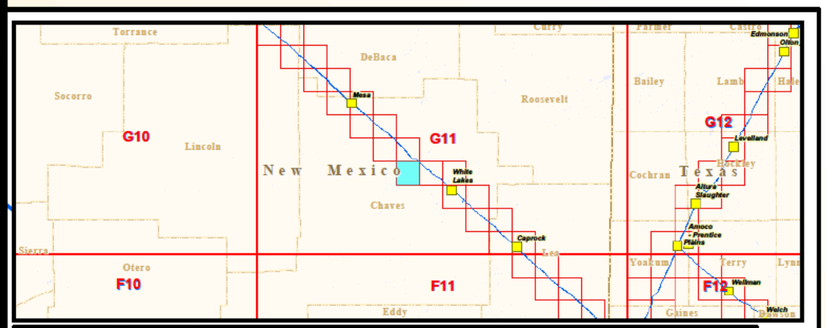
EPOLLC - Liquids HCA Validation

2/20/2008

Miles 1 0 1 2

Map Number
G11_0042

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

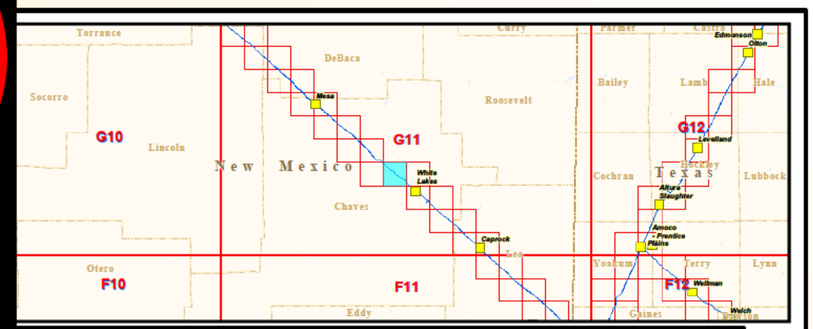
/20/2008

1 0 1 2
Miles

Map Number
G11_0055

orld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

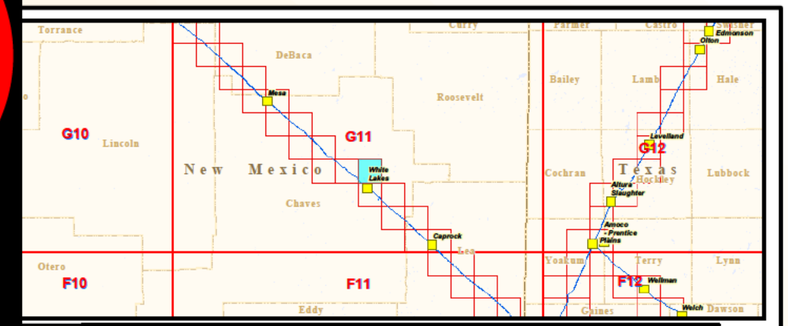
EPOLLC - Liquids HCA Validation

0/2008 Miles 1 0 1 2

Map Number G11_0056

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

PCO, INC. **Pipeline Integrity Department**

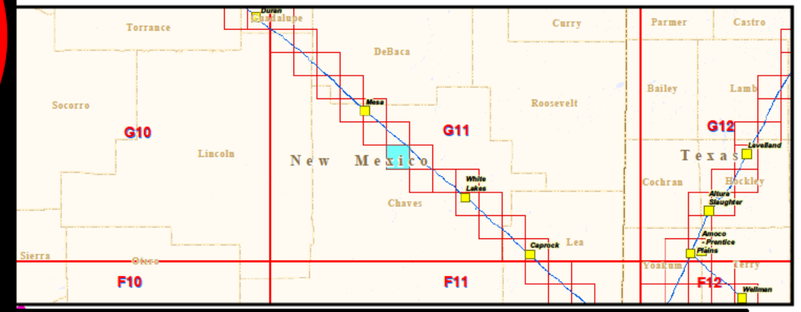
EPOLLC - Liquids HCA Validation

008 Miles 1 0 1 2

Map Number **G11_0057**

tor Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

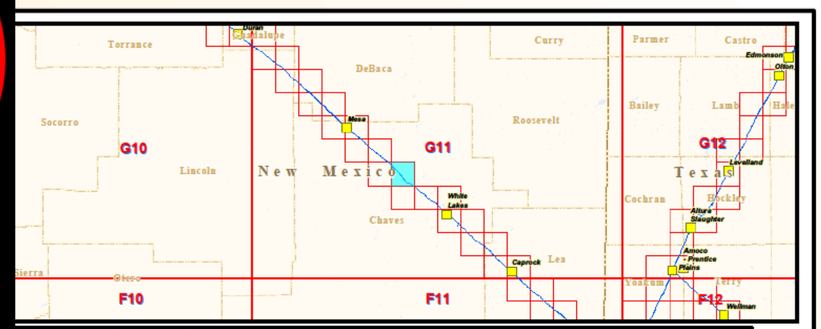
EPOLLC - Liquids HCA Validation

0/2008 Miles 1 0 1 2

Map Number G11_0070

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
595	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

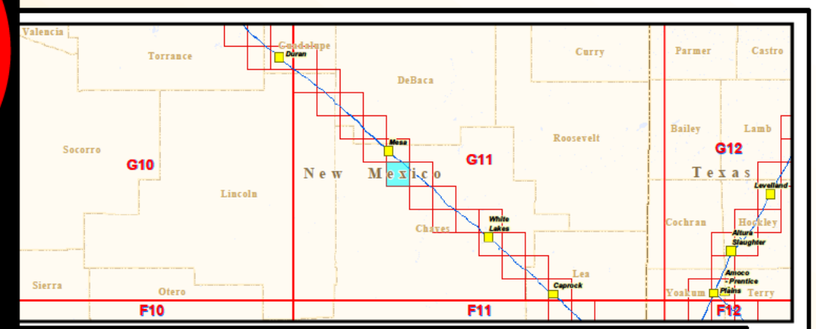
20/2008

1 0 1 2
Miles

Map Number
G11_0071

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
0	16	Segment 12	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

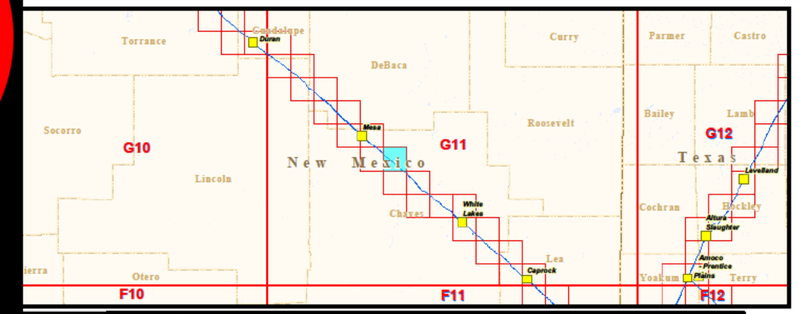
EPOLLC - Liquids HCA Validation

0/2008 Miles 1 0 1 2

Map Number G11_0085

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
0	16	Segment 12	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

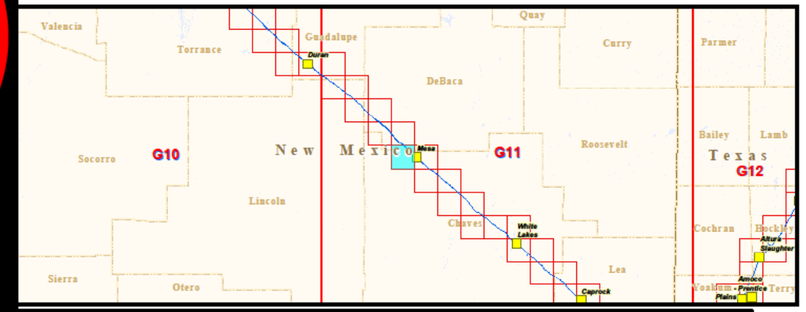
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **G11_0086**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
39	16	Segment 11	Enterprise Products Operating LLC
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

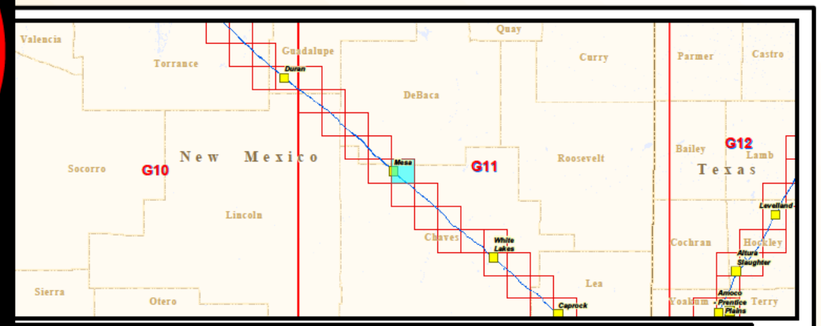
0/2008

1 0 1 2 Miles

Map Number G11_0100

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
139	16	Segment 11	Enterprise Products Operating LLC
140	16	Segment 12	Enterprise Products Operating LLC
595	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
599	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

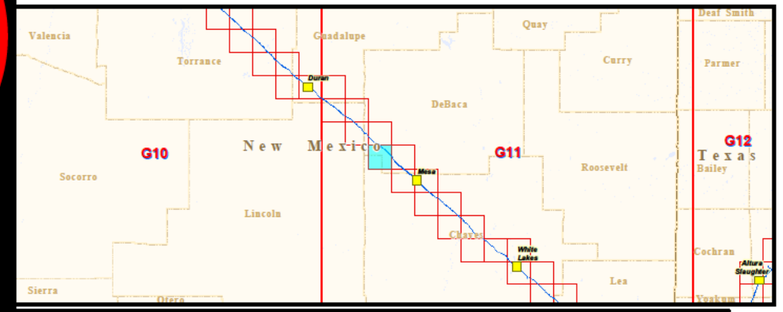
20/2008

1 0 1 2
Miles

Map Number
G11_0101

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	16	Segment 11	Enterprise Products Operating LLC
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

PCO, INC. **Pipeline Integrity Department**

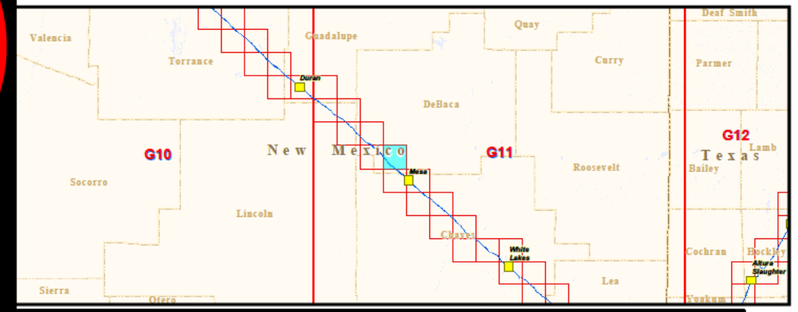
EPOLLC - Liquids HCA Validation

2008

1 0 1 2
Miles

Map Number
G11_0115

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
9	16	Segment 11	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

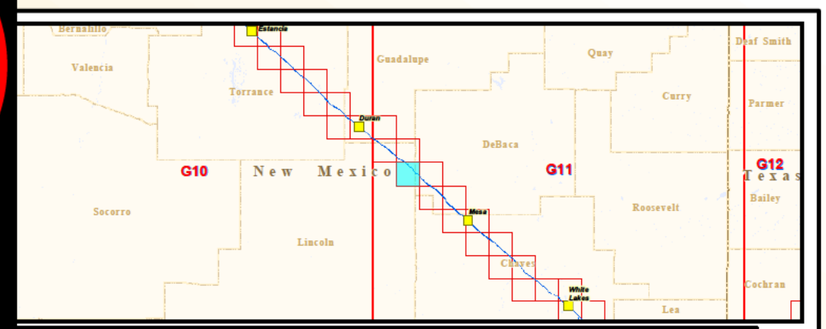
0/2008

Miles 1 0 1 2

Map Number
G11_0116

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

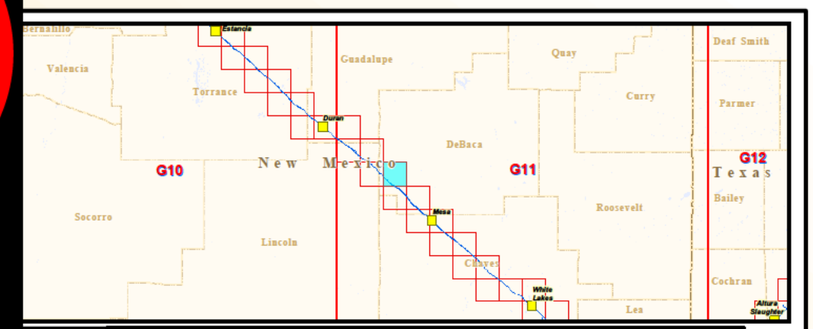
EPOLLC - Liquids HCA Validation

20/2008

1 0 1 2
Miles

Map Number
G11_0130

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
9	16	Segment 11	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

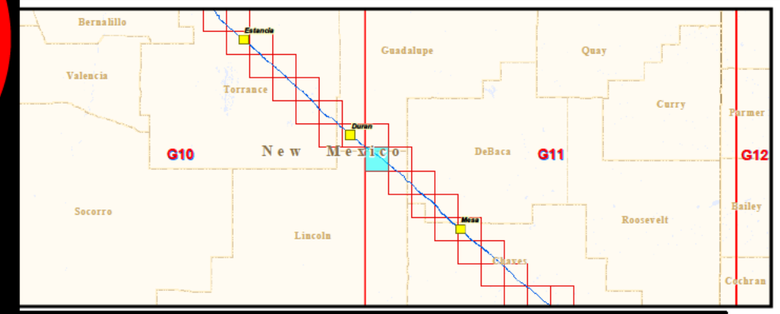
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **G11_0131**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



#	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

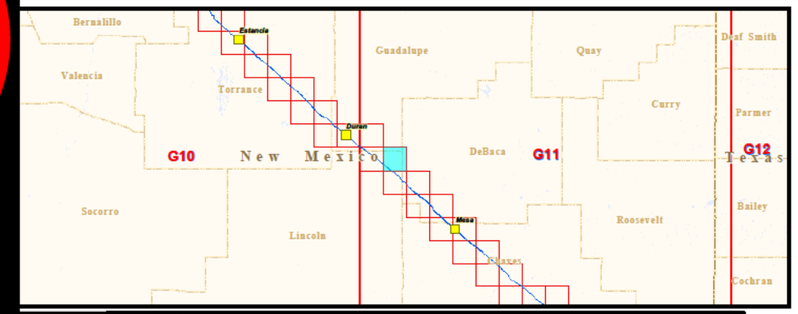
PCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

008 Miles 1 0 1 2

Map Number **G11_0145**

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

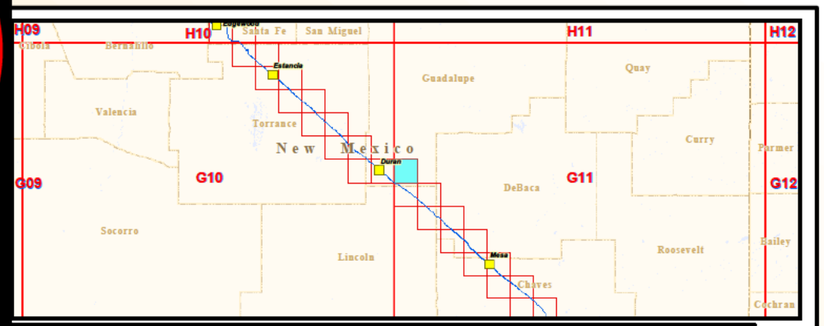
0/2008

1 0 1 2
Miles

Map Number
G11_0146

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

/20/2008

1 0 1 2
Miles

Map Number
G11_0161

rld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

WORK CONTRACT NO. 2028
ORIGINATOR ALVARO PARRA
(Type/Print Department and Location)

ENTERPRISE PRODUCTS OPERATING L.P.

SERVICE AGREEMENT (Rev. 08/98)

THIS CONTRACT is entered into this 15th day of March, 2004, in the City of Houston, Harris County, Texas, between ENTERPRISE PRODUCTS OPERATING L.P., a Delaware limited partnership, P. O. Box 4324, Houston, Texas 77210-4324 ("Company"), and:

GARNER ENVIRONMENTAL SERVICES, INC.
(Full Legal Name)

a Texas Corporation
(State) (Corporation, Partnership or Sole Proprietorship)

1717 West 13th Street
(Address)

Deer Park, Texas 77536 ("Contractor").
(City) (State) (Zip)

IN CONSIDERATION of the mutual promises in this Contract and other good and valuable consideration, the parties agree as follows:

I. APPROVED CONTRACTOR LIST Upon execution of this Contract by Contractor and Company, Contractor shall be included on Company's Approved Contractor List, indicating Contractor's eligibility to perform Work for Company; and Company and Contractor agree that this Contract shall remain in force until terminated as provided by its terms.

II. DEFINITIONS "Contract" and "Agreement" mean this Contract and any subsequent oral or written Work order or agreement (together with any drawings, specifications or other exhibits attached to it) between the parties for Work. "Work" means all labor, goods, materials and services required to be performed and furnished by Contractor under any Agreement.

III. PERFORMANCE Contractor represents and warrants that all Work shall be in strict accordance with and subject to all Contract terms and conditions, that it has adequate equipment in good working order and fully trained personnel capable of efficiently operating such equipment or performing any services provided under any Agreement, and that all Work shall be performed in a good and workmanlike manner, satisfactory and acceptable to Company. Contractor represents and warrants that it shall be able to fulfill all of its obligations under any Agreement with no degradation in performance due to the calendar change from 1999 to 2000 and beyond January 1, 2000.

IV. INDEPENDENT CONTRACTOR Contractor is and shall be an independent contractor with respect to Work, and neither Contractor nor its employees or subcontractors or their employees shall be deemed, for any purpose, to be the employee, agent, servant, or representative of Company in the performance of Work. Company shall have no direction or control of the Contractor or its employees and agents except in the results to be obtained. Work shall conform with all applicable specifications and meet the approval of Company and shall be subject to the general right of inspection by or for Company. The actual performance and superintendence of Work shall be by Contractor, but Company or its representative shall have unlimited access to Contractor's operations to determine whether Work is being performed by Contractor in accordance with the Contract.

V. EMPLOYMENT CONTRIBUTIONS AND BENEFITS Contractor agrees to accept full and exclusive liability for the payment of and to pay when due any and all premiums, contributions and taxes for Workers= Compensation Insurance and Unemployment Insurance and for old age pensions, annuities and other retirement benefits imposed by or pursuant to Federal or State law and measured by the wages, salaries or other remuneration paid to persons employed by Contractor; and Contractor further agrees to indemnify and hold Company harmless against any liability for any such premiums, taxes or contributions which may be assessed against Company with respect to Contractor, its employees or subcontractors.

VI. TAXES AND FEES ***All domestic federal, state and municipal taxes, except income taxes and ad-valorem taxes, now and hereinafter imposed with respect to services rendered, to rental equipment, to the processing, manufacture, repair, and to the delivery and transportation of equipment and supplies will be added to and become part of the total price payable by the Company. If Company claims an exemption from payment of Texas Sales and Use Tax, Company will be required to render an Exemption Certificate or a Resale Certificate to Garner Environmental Services, Inc. for said exemption to apply to the services rendered. If for any reason the services rendered result in the assessment of foreign income taxes, excise taxes, or other fees alleged as owing to a foreign state or government, Company will pay directly the amount of any assessment or fee. In the event Contractor pays any such foreign tax or fee directly, Company will promptly reimburse Contractor for same.***

VII. LABOR AND MATERIAL Contractor shall pay all claims for labor and material related to the Work and shall not permit any liens of any kind to be fixed against the property of Company or the property of others arising out of claims of Contractor, its employees, mechanics, materialmen, or subcontractors; and upon the completion of the Work, Contractor shall furnish Company with evidence satisfactory to Company of the payment of all such claims. Contractor shall indemnify and hold harmless Company from and against all such claims or liens; and Contractor agrees, that, without waiver of any other rights or remedies available to Company, any sums due to Contractor from Company may be withheld and applied by Company toward the discharge or payment of any such claims or liens.

VIII. PAYMENT FOR WORK Payment for Work shall be as provided in Exhibit II or as provided in any Agreement. Payment for Work performed on a reimbursable-cost basis shall be made by Company to Contractor in accordance with Contractor's then-current rate schedule; Contractor shall furnish Company its rate schedule prior to commencing any such Work and notify Company in writing of any changes in the rate schedule. Neither payment for nor use of Work in whole or in part by Company shall constitute acceptance of any Work or materials which do not conform to Contract terms and specifications or settlement of any unsettled claims, liabilities, duties, liens or other encumbrances. Contractor shall keep accurate books and records of all Work, and, within two (2) years from the completion of Work under a particular Agreement or the termination of this Contract, whichever is earlier, Company or its representative shall have the right to inspect, copy and audit, during Contractor's normal business hours, its books and records of every description for the purpose of determining the accuracy of any charges, claims or demands relating to Work.

IX. COMPLIANCE In the performance of all Work, Contractor warrants and represents that it and its subcontractors shall comply with all applicable statutes, ordinances, rules and regulations, including but not limited to those administered by the U.S. Occupational Safety and Health Administration, the U.S. Environmental Protection Agency, the U.S. Department of Transportation ("DOT") and state agencies exercising concurrent or similar jurisdiction; and Contractor shall indemnify and hold harmless Company from any and all claims or demands of a penal nature or civil penalties which may arise from violation of such statutes, ordinances, rules and regulations by Contractor or any subcontractor employed by it.

X. COMPANY PREMISES Contractor shall conform and shall require its employees, agents and subcontractors to conform, while at or near the location of the Work or on Company's premises, to all requirements of Company, including, but not limited to, Company's rules of conduct, safety rules, contractor safety policies, routes of ingress and egress and other requirements for the protection of persons or property. Contractor shall provide and take all safety precautions which the nature of the Work may require or indicate and keep the Work location free from accumulations of waste and rubbish. Upon completion of all Work, Contractor shall clean up and dispose all waste and rubbish generated by it or its subcontractors, collect unused material belonging to it or its subcontractors, and restore the location to as clean and orderly a condition as existed prior to commencement of the Work.

XI. ACCIDENT REPORTS Contractor shall report to Company in writing, as soon as practicable, all accidents or occurrences resulting in bodily injury, including death, or damage to or destruction of property arising out of or during the course of performance of any Agreement and, upon request, shall furnish Company with copies of all reports made by Contractor to Contractor's insurer or to others of such accidents and occurrences.

XII. DRUG-FREE WORKPLACE A. Contractor and each of its subcontractors performing Work at any Operational Facility shall establish and enforce within its organization an anti-drug program to assure a drug-free workplace. Contractor's anti-drug program shall include provisions for the auditing by Contractor of its subcontractors' anti-drug programs. "Operational Facility" means the entire premises of each Company processing plant, terminal, loading rack, pipeline, storage facility, warehouse, garage, shop, construction location and field worksite.

B. Contractor represents and warrants that it and its subcontractors shall assign and allow to Work at Operational Facilities only employees who have current negative drug screen results under their employer's anti-drug program. A current result is one based on the most recent drug screen performed within 12 months of a day on which Work is to be performed.

C. Before performing Work at any Operational Facility, Contractor shall furnish and cause each of its subcontractors to furnish Company with documentation of their respective anti-drug programs demonstrating that each program meets or exceeds the requirements of Company's Drug, Alcohol and Illegal Items Policy attached hereto as Exhibit III and meets or exceeds the requirements of any applicable law or regulation. Complete records of the anti-drug program shall be kept at Contractor's and each subcontractor's home office, respectively, and be available for audit by Company during regular office hours. Failure or refusal by Contractor or a subcontractor to establish and maintain a satisfactory anti-drug program, keep adequate records of it, or permit Company to audit compliance with it shall be grounds for immediate suspension of Contractor's and its subcontractor's authorization to proceed with Work or termination of this Contract.

D. Before performing Work at any Operational Facility, Contractor and each subcontractor shall certify to Company in a writing signed by an executive officer of the employer that each employee (identified by name, Social Security Number or employee I.D. number and date of drug screen result) who will perform Work at the Operational Facility has a current negative drug screen result under the employer's anti-drug program. Such certification shall be kept current throughout the duration of the Work, and notice of any change in an employee's certified status shall be given by the employer to Company in writing immediately. Company may exclude from Operational Facilities any Contractor or subcontractor employee who does not have a current certification, and any delay in the performance of Work due to lack of properly certified employees will be for the account of Contractor.

E. On any pipeline or other DOT-regulated work, Contractor and its subcontractors shall also furnish Company with written certification of each employee's negative drug screen results under DOT regulations.

XIII. INSURANCE A. Contractor, at its own expense, shall provide and maintain in force with insurance companies acceptable to Company the kinds of insurance and minimum amounts of coverage set forth in paragraph B, below, to cover all loss and liability for damages on account of bodily injury, including death, and damage to or destruction of property caused by or arising from any and all activities carried on or any and all Work performed under any Agreement. Contractor shall cause its insurer to name Certificate Holder as an additional insured on its Auto, General and Excess Liability insurance policies and grant Certificate Holder a waiver of subrogation on its Workers= Compensation insurance policy. "Certificate Holder" shall have the meaning provided in the Certificate Holder Definition in Exhibit IV. If Contractor fails or refuses to carry out any of the provisions of this Article XIII, Company shall, in addition to any right to recover damages or obtain other relief, have the right to suspend Contractor's authorization to proceed with Work or terminate this Contract.

B. 1) WORKERS= COMPENSATION (Including Occupational Disease) and EMPLOYER'S LIABILITY INSURANCE. Contractor's Workers= Compensation and Employer's Liability coverages shall apply to all employees, including borrowed servants, in accordance with the benefits afforded by the statutory Worker's Compensation Acts, USL & H and Maritime Acts applicable to the State, Territory or District of hire, supervision or place of accident. A waiver of subrogation to Certificate Holder is required. Policy limits shall not be less than:

Worker's Compensation: Statutory Limits.
Employer's Liability: $500,000, each accident; $500,000 Disease, policy limit; $500,000 Disease, each employee.

2) COMMERCIAL GENERAL LIABILITY INSURANCE, as primary policy over all others, covering premises, operations, products and completed operations, independent contractors, and blanket contractual liability. The policy shall cover all liabilities arising out of explosion, collapse and underground ("XCU") hazards. The policy shall be endorsed to provide broad-form property damage, including completed operations, coverage. An "additional insured" endorsement naming Certificate Holder is required. Policy limits shall not be less than:

Bodily Injury: $500,000 per occurrence, $1 million aggregate.
Property Damage: $500,000 per occurrence, $1 million aggregate.
OR Combined Single Limit (CSL) of $1 million per occurrence, $2 million aggregate.

3) COMPREHENSIVE-AUTOMOBILE LIABILITY INSURANCE, as primary policy over all others, covering all owned, hired and non-owned automotive equipment. An "additional insured" endorsement naming Certificate Holder is required. Policy limits shall not be less than:

Bodily Injury: $500,000 per person, $500,000 per occurrence/accident.
Property Damage: $500,000 per occurrence.
OR Combined Single Limit of $1 million per occurrence.

4) EXCESS/UMBRELLA LIABILITY INSURANCE, to be primary excess over all others:

____ None. _____ $1 million. _____ $2 million. _____ $3 million. ___X__ $5 million. ___ Other: $_____.

5) Additional insurance and surety limits:

a) ___ NONE REQUIRED.
b) ___ ALL-RISK BUILDER'S RISK POLICY with limits of $_____, Minimum Deductible $_____.
c) ___ CONTRACTOR'S EQUIPMENT FLOATER POLICY
d) ___ OWNER/CONTRACTOR'S PROTECTIVE LIABILITY POLICY with minimum limits of $500,000 CSL.
e) ___ CRANE COVERAGE -- LIFTER'S LIABILITY POLICY with limits of $500,000 CSL.
f) ____ PROFESSIONAL LIABILITY INSURANCE covering acts, errors, omissions, malpractice, as applicable, potentially arising from or pertaining to any Work to be performed by Contractor, its employees, agents or subcontractors; policy limits shall not be less than $1 million per occurrence; OR in lieu of such insurance, Contractor may furnish an irrevocable letter of credit in form and amount and with an issuer satisfactory to Company.
g) ___ PERFORMANCE AND MAINTENANCE BOND. Upon execution of this Contract and prior to commencing performance hereunder, Contractor shall execute, with a surety company satisfactory to Company, a Surety Bond to guarantee completion of the Work within the time provided, the payment of all claims and the fulfillment of all obligations arising, either directly or indirectly, under any Agreement, including but not limited to the defense of all litigation incidental to any Agreement to which Certificate Holder is made a party. The surety limits shall be not less than one hundred percent (100%) of the total estimated contract price or as agreed to by Company. In lieu of such surety bond, Contractor may cause to be issued an irrevocable letter of credit payable to the order of Company in such amount, in a form and with an issuer acceptable to Company; or, if acceptable to Company, Contractor may use a combination of surety bond, letter of credit, or corporate or personal guaranty.
h) X POLLUTION LIABILITY

C. Contractor's insurance policies shall be endorsed as follows and in accordance with state law:

Worker's Compensation policy:

1) Blanket waiver of subrogation, OR 2) "The Insurers hereby waive their rights of subrogation against Certificate Holder and any individual, firm, or corporation, their subsidiaries, factors or assigns for whom or with whom the Assured may be working."

Primary General, Auto and Excess Liability Policies:

1) Blanket additional insured endorsement, OR 2) the Form of Additional Insured Endorsement in Exhibit IV.

D. Contractor represents and warrants that at all times during the term of this Contract it shall have furnished or caused to be furnished to Company an original, current certificate of insurance on forms acceptable to Company (most recent ACORD form) reflecting:

1) The kinds and amounts of insurance required above.
2) The insurance company or companies carrying the required coverages.
3) The policy number and the effective and expiration dates of each policy.
4) That Certificate Holder will be given thirty (30)-day prior written notice of any material change in or termination of any policy.
5) That a waiver of subrogation under Contractor's Worker's Compensation policy has been issued to Certificate Holder.
6) That Certificate Holder has been named as an "Additional Insured" on Contractor's primary Auto & General Liability policies and Excess/Umbrella policies.
7) That the Broad Form Property Damage and XCU Coverage Endorsements have been attached to all applicable policies.
8) The territorial limits of all policies.
9) That the indemnification and hold-harmless provisions of this Contract are insured.
10) That the "aggregate" as reported in the policy limits in the Certificate of Insurance, has not been exposed or used up by prior or pending claims.
11) A Certificate Holder notation reading as shown in the Form of Certificate Holder Notation in Exhibit IV.

E . All policies shall provide that the insurance company will notify Certificate Holder not less than thirty (30) days prior to the termination of any policy and before any changes are made which restrict or reduce the coverage provided or change the name of the insured.

F. Contractor represents and warrants that insurance policies with the coverages and limits required in this Contract have been issued to Contractor and shall remain in full force and effect during the term of this Contract and that none of these policies shall be canceled or changed, so as to change the name of the named insured or restrict or reduce the insurance coverages required by this Contract and described by Contractor's certificate of insurance, without thirty (30)-day prior written notice of such cancellation or change being delivered by Contractor to Certificate Holder at the address shown in the Form of Certificate Holder Notation in Exhibit IV.

G. Contractor shall require each of its subcontractors to provide the foregoing coverages as well as any other coverages that Contractor may consider necessary, all to be endorsed with the above-specified waiver of subrogation and additional insured wording; and any deficiency in the coverages, policy limits or endorsements of said subcontractors will be the sole responsibility of Contractor.

H. It is understood and agreed by Contractor and Company that the coverages granted to the Certificate Holder "additional insured" in Contractor's policies of insurance as required in this Contract are to apply on a primary basis over all other valid and collectible insurance owned by and or available to the "additional insured." It is further understood and agreed by Contractor and Company that such coverages provided by Contractor to the "additional insured" are applicable to liability associated with the operations, products, completed operations, premises, equipment and or vehicles contemplated by this Contract. Contractor shall be solely responsible for any deductible or self-insured retention associated with the coverages granted to the Aadditional insured.@

XIV. INDEMNITY **EXCEPT AS EXPRESSLY LIMITED IN THIS CONTRACT, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS COMPANY, ITS DIRECTORS, OFFICERS, AGENTS AND EMPLOYEES AND THEIR SUCCESSORS, HEIRS AND ASSIGNS ("INDEMNIFIED PARTIES") FROM AND AGAINST ANY AND ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITY OF EVERY KIND AND CHARACTER (INCLUDING, BUT NOT LIMITED TO, ALL COSTS OF DEFENSE, SETTLEMENT AND REASONABLE ATTORNEY'S FEES) ("CLAIMS")** ***TO THE EXTENT CAUSED BY OR ARISING FROM CONTRACTOR'S OR ITS SUBCONTRACTORS' FAULT OR NEGLIGENT PERFORMANCE OF THE*** **SERVICES TO BE PROVIDED UNDER ANY AGREEMENT, WHICH MAY BE ASSERTED BY ANY THIRD PARTY, GOVERNMENTAL AGENCY OR ENTITY, CONTRACTOR, OR CONTRACTOR'S EMPLOYEES, AGENTS, CONTRACTORS, SUBCONTRACTORS OR THEIR EMPLOYEES OR AGENTS. THIS DUTY OF INDEMNIFICATION INCLUDES, BUT IS NOT LIMITED TO, CLAIMS RELATING TO OR ARISING OUT OF BREACH OF CONTRACT, DEATH, PERSONAL INJURY, PROPERTY DAMAGE OR LOSS (INCLUDING, WITHOUT LIMITATION, POLLUTION OR ENVIRONMENTAL DAMAGE), ANY THEORY OF STRICT LIABILITY, AND ANY CIVIL OR CRIMINAL FINES OR PENALTIES RELATING TO OR ARISING UNDER ANY CLAIM. WHERE A CLAIM IS THE RESULT OF THE JOINT OR CONCURRING NEGLIGENCE OF CONTRACTOR AND AN INDEMNIFIED PARTY, CONTRACTOR'S DUTY OF INDEMNIFICATION AS SET FORTH IN THIS ARTICLE XIV SHALL BE IN PROPORTION TO ITS ALLOCABLE SHARE OF SUCH JOINT OR CONCURRING NEGLIGENCE.**

XV. PATENTS AND LICENSES A. Contractor represents and warrants that the use or construction of any and all tools, equipment and processes furnished by Contractor and used in any Work does not and shall not infringe on any license or patent which has been issued or applied for; and, in addition to all other indemnifying provisions contained in this Contract, Contractor agrees to indemnify, defend and hold Company harmless from any and all claims, demands, and causes of action of every kind and character in favor of or made by any patentee, licensee or claimant of any right or priority to such tool, equipment or process, or the use or construction thereof, which may result from or arise out of furnishing or use of any such tool, equipment, or process by Contractor.

B. Contractor warrants that it has obtained, or will obtain, an assignment of any original work of authorship created by any of its employees or independent contractors during the performance by Contractor of its duties and obligations under any Agreement. Contractor further warrants that it will disclose such original works of authorship to Company on a timely basis and will timely assign such rights to Company.

C. Contractor warrants that it has obtained, or will obtain, from its employees and independent contractors an assignment of all rights in any new and useful process, machine, manufacture or composition of matter, and any new and useful improvement thereof made by any of them in the course of the performance of Contractor's duties and obligations under any Agreement. Contractor further warrants that it will promptly disclose any new and useful process, machine, manufacture or composition of matter and any new and useful improvement thereof made by any of its employees or independent contractors in the course of the performance of Contractor's duties and obligations under any Agreement and will assign such rights to Company on demand.

XVI. SURVIVAL As part of the consideration for this Contract, Contractor hereby agrees that its provisions concerning indemnity, warranty, waiver of subrogation and patent infringement shall extend to and be enforceable by and shall inure to the benefit of any owner, joint owner, co-venturer, operator or non-operator for which Company is acting and shall survive completion of any Work and the termination of this Contract.

XVII. SUBCONTRACTING A. No subcontract may be awarded by Contractor unless approved in advance by Company in writing. Contractor shall be and remain primarily liable for all obligations assumed by Contractor under this Contract. Contractor's subcontracting of any portion of the Work shall not release or relieve Contractor from any obligation or liability under any Agreement. Contractor shall furnish Company with a true and complete copy of each subcontract awarded by Contractor within five (5) days after such subcontract is executed. Contractor shall oversee and be responsible for the performance of its subcontractors and keep accurate books, records and accounts and furnish such reports and information as Company may request relative to subcontracts.

B. Contractor represents and warrants that, prior to entry on Company's premises: 1) each subcontractor shall be given a copy of this Contract and any related Agreement (provided, however, Contractor may strike out or delete provisions pertaining to its compensation), 2) each subcontractor shall be familiar with each Contract term and condition, and 3) each subcontractor shall agree, to the extent of its respective portions of the Work, to perform fully each Contract term and condition.

XVIII. DEFAULT If Contractor breaches any warranty contained in any Agreement, or if any of Contractor's representations contained in any Agreement shall be found to be false, or if Contractor fails to prosecute the Work, or fails to make the progress set forth in any Agreement, or fails to pay any indebtedness when due, or fails to perform any of the conditions of or obligations assumed under any Agreement, or becomes insolvent, or if any voluntary or involuntary proceedings are instituted by or against Contractor in bankruptcy or insolvency, or if a receiver, trustee or assignee is appointed for the benefit of creditors of Contractor ("Events of Default"), Company may, if it so elects and without prejudice to any other rights or remedies it may have in law or equity:

1) suspend Contractor's authorization to proceed with Work,
2) remove Contractor from Company's Approved Contractor List,
3) terminate this Contract or any Agreement,
4) suspend payment in whole or in part under any Agreement until the Event of Default has been remedied, and/or,
5) take the Work remaining to be completed wholly or partly out of the hands of Contractor or any other person in whose hands or possession the Work or any part of it may be, in which event Company may award such Work to another contractor. Contractor in such event, in the manner and to the extent directed by Company, and only to such extent, shall assign to Company all of the rights of Contractor under its work orders, purchase orders and subcontracts relating to the Work.

XIX. TERMINATION Either party may terminate this Contract by giving the other party thirty (30)-day prior written notice, but neither party shall, by the termination of this Contract, be relieved of its respective obligations and liabilities arising from or incidental to Work performed prior to termination. Except as expressly provided in this Contract, it may not be terminated during the performance of any Agreement.

XX. FORCE MAJEURE If either party is rendered unable, wholly or in part, by force majeure to carry out its obligations under any Agreement, then on such party giving notice and full particulars of such force majeure in writing to the other party as soon as practicable after the occurrence of the cause relied on, then the obligation of the party giving such notice, so far and only insofar as affected by such force majeure, shall be suspended during the continuance of any inability so caused, but for no longer period, and such cause shall be remedied with all reasonable dispatch. "Force majeure" means acts of God, strikes, lockouts or labor disputes involving a general stoppage of Work on the job, civil disturbance, military action, rules, regulations, orders or acts of governmental authority, or other similar causes beyond the control of Company or Contractor. The requirement that events of force majeure be remedied with all reasonable dispatch shall not require the settlement of labor matters when such course is inadvisable in the judgment of the party having the difficulty.

XXI. ENTIRE AGREEMENT This Contract and any Agreement represent the entire agreement of the parties. No provision of any delivery ticket, invoice or other instrument used by Contractor in describing any Work shall supersede the provisions of any Agreement. The terms of this Contract shall prevail over conflicting terms of any Agreement or Work order, oral or written.

XXII. TIME OF THE ESSENCE Time is expressly declared to be of the essence of all Agreements.

XXIII. NON-WAIVER No election by Company under this Contract shall constitute a waiver of any other rights or remedies available to it at law or in equity. Neither waiver by Company nor any amendment of any of the terms, provisions, or conditions of any Agreement shall be effective unless in writing and signed by an authorized representative of Company.

XXIV. NOTICES All notices to be given with respect to this Contract and any Agreement shall be given to Company and to Contractor, respectively, at the address first above written and shall be in writing, postage or delivery charges prepaid. All notices shall be effective upon actual receipt or refusal of delivery by the party to whom given. All sums due to Contractor under any Agreement shall be payable at ***Contractor's principal place of business, Garner Environmental Services, Inc., 1717 West 13th Street, Deer Park, Harris County, Texas 77536.***

XXV. ASSIGNMENT This Contract shall inure to the benefit of the parties, their successors and assigns. No Agreement or any payment accruing under it is assignable by Contractor, nor may it be pledged by Contractor as security without the prior written consent of Company.

XXVI. GOVERNING LAW This Contract and all Agreements are and shall be deemed to be made and delivered in Harris County, Texas, and shall be governed by and construed in accordance with the law of the State of Texas, without regard for its principles of conflicts of laws. Any legal action arising under this Contract shall be brought in the courts of the State of Texas or of the United States for the Southern District of Texas, Houston Division, to which venue and non-exclusive jurisdiction each party expressly consents for itself and in respect of its property for all purposes.

XXVII. DISPUTES If Company and Contractor have a dispute under any Agreement, they both undertake to explore, in good faith, resolution of the dispute through negotiation, mediation or similar alternative dispute resolution techniques prior to filing litigation. If any litigation or other formal proceeding must be filed by either party to preserve its rights under a statute of limitations or other legal deadline during the pendency of any alternative dispute resolution technique, the party filing such action will not require the other party to answer (if such delay is permitted by applicable rules) and will do all that is otherwise necessary to stay the action until the pending alternative resolution technique is terminated. If either party believes the dispute is not suitable for such alternative dispute resolution techniques, or if such techniques do not produce results satisfactory to the parties, either party may proceed with litigation. If the parties are unable to resolve any dispute by the alternative dispute resolution techniques described above and either party proceeds with litigation, the losing party shall pay the prevailing party's reasonable attorneys' fees, costs and necessary disbursements in addition to any relief that a court may grant.

XXVIII. AUTHORIZED REPRESENTATIVE Contractor represents and warrants that the person executing this Contract and any Agreement on behalf of Contractor is a duly authorized representative of Contractor and is vested with full authority to bind Contractor.

XXIX. CONFIDENTIAL INFORMATION A. All information concerning the business, customers, products, processes and trade secret information of Company ("Confidential Information") which may come into the possession of Contractor during the course of the negotiation or performance of this Contract or any Agreement is confidential to Company, shall be used by Contractor for the sole purpose of providing services to Company under this Contract and shall not be disclosed by Contractor to any third party without the prior written consent of Company. All Confidential Information shall become and remain the property of Company and shall be deemed to have been entrusted to Contractor only for the limited purposes of this Contract, and Contractor will not, without the prior written consent of Company use, reproduce or copy, or permit the use, reproduction or copying of any Confidential Information; provided, however, Contractor may make adequate reproductions and copies for the purpose of carrying out the Work. All Confidential Information received or created by Contractor and any reproductions or copies thereof made by Contractor shall be delivered to Company at any time prior to termination of this Contract at the request of Company and shall be delivered to Company immediately upon termination of this Contract. Nothing contained in this Contract or in any disclosures made by Company under it shall be construed to grant to Contractor any license or other rights of Company in or to Confidential Information or under any copyright or patent which has been or may in the future be issued with respect to Confidential Information.

B. Contractor will not be bound by the provisions of this Article XXIX with respect to information which:

(1) was available to the public prior to receipt of such information by Contractor pursuant to any Agreement; or

(2) becomes available to the public subsequent to receipt of such information by Contractor pursuant to any Agreement and through no fault of Contractor; or

(3) was already in Contractor's possession and not acquired, either directly or indirectly, from Company under an obligation of confidentiality; or

(4) subsequently is obtained from a third party who is lawfully in possession of such information and who is not under a contractual or fiduciary obligation to Company or another person with respect to such information.

XXX. TENSE, GENDER AND NUMBER Unless expressly provided otherwise, the use in this Contract of the past, present or future tense shall include the others, the masculine, feminine or neuter gender shall include the others, and the singular or plural number shall include the other.

XXXI HEADINGS The titles to the articles of this Contract are for the convenience of the parties, only; they are not a part of the Contract and shall have no effect in the construction or interpretation of it.

XXXII EXHIBITS The Exhibits checked below and attached to this Contract are incorporated in and made a part of it for all purposes:

_x_	Exhibit I	Scope of Work
_x_	Exhibit II	Price & Invoicing
_x_	Exhibit III	Drug, Alcohol & Illegal Items Policy
_x_	Exhibit IV	Insurance
___	Exhibit V	Schedule
___	Exhibit VI	Drawings & Attachments
___	Exhibit VII	General Requirements
___	Exhibit VIII	Consultant Terms & Conditions
___	Exhibit IX	_____

In the event of any conflict between the foregoing terms of this Contract and the Exhibits, the foregoing terms shall prevail.

ENTERPRISE PRODUCTS OPERATING L.P.
By Enterprise Products OLPGP, INC., its general partner

By: T Hedglin

Title: Vice President, Engineering & Administration

GARNER ENVIRONMENTAL SERVICES, INC.
CONTRACTOR

By: Otis Chambers

Title: EXECUTIVE VICE PRESIDENT

SERVICE AGREEMENT.DOC

EXHIBIT I

SCOPE OF WORK

Contractor's Work will be:

EMERGENCY RESPONSE AND RELATED SERVICES TO BE PERFORMED ON AS NEEDED, AS AVAILABLE BASIS SUBJECT TO CIRCUMSTANCES THEN EXISTING.

EXHIBIT II

PRICE AND INVOICING

IN ACCORDANCE WITH CONTRACTOR'S CURRENT RATE SHEET.

EXHIBIT III

ENTERPRISE PRODUCTS OPERATING L.P.

POLICY

ILLEGAL AND UNAUTHORIZED ITEMS AT
OPERATIONAL FACILITIES AND IN OPERATIONAL VEHICLES

Enterprise is committed to providing a safe working environment for its employees, visitors, and contract personnel.

THE POSSESSION, USE, SALE, TRANSFER, RECEIPT OR PRESENCE AND BEING UNDER THE INFLUENCE OF DANGEROUS DRUGS OR CONTROLLED SUBSTANCES (EXCEPT AS LAWFULLY PRESCRIBED FOR THE PERSON IN POSSESSION AND DISCLOSED BY A PHYSICIAN'S ADVISORY FORM), DRUG PARAPHERNALIA OR ALCOHOLIC BEVERAGES ARE FORBIDDEN AT, UPON OR WITHIN ENTERPRISE OPERATIONAL FACILITIES AND OPERATIONAL VEHICLES.

Operational facilities include the entire premises of all terminals, processing plants, loading racks, pipelines, storage, warehouses, garages, shops, construction locations and field worksites. Operational vehicles include all vehicles (tractors, trailers, transports and pickups) bearing an external company name, logo, trade name, trademark or placard. Dangerous drugs include all drugs and devices which are prohibited by Federal or State law from being dispensed without a prescription. Controlled substances include cocaine, marijuana, narcotics and all other drugs and materials which are controlled under Federal or State law. Drug paraphernalia includes roach clips, gram scales and any other property or material which Enterprise deems is intended or has been adapted or modified for drug use. Alcoholic beverages include liquor, beer and wine, except liquor, beer and wine stored in passenger vehicles. "Under the influence" means having detectable levels of dangerous drugs, controlled substances or alcohol in the blood or urine.

Employees will not be permitted to work while under the influence of drugs or alcohol. Individuals who appear to be unfit for duty will be released from duty and may be subject to a physical examination at a designated medical facility. Refusal to comply with a fitness-for-duty examination may result in disciplinary action up to and including DISCHARGE.

Any employee who uses or is found to be in possession or under the influence of these illegal or unauthorized items at, upon or within these Enterprise facilities or vehicles will be relieved from duty immediately and subject to disciplinary action up to and including DISCHARGE. Others who use or are found to be in possession or under the influence of such items at, upon or within these Enterprise facilities or vehicles will be removed from Enterprise's vehicles and facilities and denied future admission to Enterprise property.

Enterprise reserves the right to search, inspect and submit to laboratory testing persons and property found at, upon or within Enterprise facilities or vehicles. Entry onto operational facilities or vehicles constitutes consent to searches or inspections. Any employee who refuses to submit his person or property to search, inspection or testing or who refuses to consent to the release of medical information in connection with a company physical examination or relevant to any accident, injury or incident involving the employee and relating to the safety, health or welfare of the employee, other employees or the public will be relieved from duty immediately and subject to disciplinary action up to and including DISCHARGE; others at, upon or within Enterprise facilities or vehicles who refuse to submit their persons or property to search, inspection or testing will be removed from and denied future admission to Enterprise property.

Off-the-job illegal drug use which could adversely affect an employee's job performance or which could jeopardize the safety of other employees, the public, or company facilities, or where such usage adversely affects the public trust in the ability of the company to carry out its responsibilities, is also cause for disciplinary action, up to and including DISCHARGE. Employees who are arrested for off-the-job drug activity may be considered in violation of this policy. In deciding what action to take, the company will take into consideration the nature of the charges, the employee's present assignment and record with the company, and the impact of the employee's arrest upon the conduct of the company's business.

Employees who wish to report drug or alcohol use in violation of this policy should contact the appropriate Vice President in charge of their group or the Vice President -- Human Resources, directly. The company will make every effort to protect anonymity, and such information will be treated in confidence.

Enterprise requires that all prescriptions and over-the-counter medicines at Enterprise operational facilities and in Enterprise operational vehicles be in original containers, with prescriptions showing the name and doctor of the person in possession. Any employee of an operational facility or driver of an operational vehicle who is taking a prescription drug must furnish his supervisor, before reporting to duty, with a Physician's Advisory form identifying the drug and certifying that, taken as directed, it will not impair the employee's physical qualifications to perform his duties and must carry with him while on duty a copy of the Physician's Advisory form acknowledged by his supervisor.

EXHIBIT IV
INSURANCE

1. Certificate Holder Definition

"Certificate Holder" shall mean Enterprise Products Partners L.P., Enterprise Products Operating L.P., Enterprise Products GP, LLC, Enterprise Products OLPGP, Inc., Enterprise Products Company, Belvieu Environmental Fuels[7], Sabine Propylene Pipeline, L.P., Baton Rouge Pipeline, LLC., Belle Rose NGL Pipeline, LLC., Chunchula Pipeline Company, LLC, Propylene Pipeline Partnership, L.P., Cajun Pipeline Company, LLC, HSC Pipeline Partnership, L.P., Sorrento Pipeline Company, LLC, Enterprise Products Texas Operating L.P., EPIK Gas Liquids LLC, EPIK Terminaling L.P., Baton Rouge Fractionators LLC, Baton Rouge Propylene Concentrator, LLC, Enterprise Gas Processing LLC, Enterprise NGL Pipelines LLC, Enterprise NGL Private Lines & Storage LLC, Enterprise Fractionation LLC, Enterprise Norco LLC, Enterprise LOU-TEX Propylene Pipeline L.P., Enterprise LOU-TEX NGL Pipeline L.P., Grand Isle Pipeline LLC., Mid-America Pipeline Company LLC, Seminole Pipeline Company, Wilprise Pipeline Company LLC, each of their parent, subsidiary and affiliated companies, partners and joint venturers, and each owner or joint owner of any equipment or facility operated by Enterprise Products Operating L.P.

2. Form of Additional Insured Endorsement

It is agreed that such insurance as is afforded by the policy shall apply to Enterprise Products Partners L.P., Enterprise Products Operating L.P., Enterprise Products GP, LLC, Enterprise Products OLPGP, Inc., Enterprise Products Company, Belvieu Environmental Fuels[7], Sabine Propylene Pipeline, L.P., Baton Rouge Pipeline, LLC., Belle Rose NGL Pipeline, LLC., Chunchula Pipeline Company, LLC, Propylene Pipeline Partnership, L.P., Cajun Pipeline Company, LLC, HSC Pipeline Partnership, L.P., Sorrento Pipeline Company, LLC, Enterprise Products Texas Operating L.P.,EPIK Gas Liquids LLC, EPIK Terminaling L.P., Baton Rouge Fractionators LLC, Baton Rouge Propylene Concentrator, LLC, Enterprise Gas Processing LLC, Enterprise NGL Pipelines LLC, Enterprise NGL Private Lines & Storage LLC, Enterprise Fractionation LLC, Enterprise Norco LLC, Enterprise LOU-TEX Propylene Pipeline L.P., Enterprise LOU-TEX NGL Pipeline L.P., Grand Isle Pipeline LLC., Mid-America Pipeline Company LLC, Seminole Pipeline Company, Wilprise Pipeline Company LLC, each of their parent, subsidiary and affiliated companies, partners and joint venturers, and each owner or joint owner of any facility operated by one or more of them, as their interests may appear, to whom the named insured is obligated by contract to provide such insurance, but only to the extent of coverage required by such contracts as respects operations performed in connection with the insured and only if such contract was agreed to in writing or orally by the named insured or his/its representatives prior to the occurrence of any loss under such contract.

3. Form of Certificate Holder Notation

Enterprise Products Partners L.P., Enterprise Products Operating L.P., Enterprise Products GP, LLC, Enterprise Products OLPGP, Inc., Enterprise Products Company, Belvieu Environmental Fuels[7], Sabine Propylene Pipeline, L.P., Baton Rouge Pipeline, LLC., Belle Rose NGL Pipeline, LLC., Chunchula Pipeline Company, LLC, Propylene Pipeline Partnership, L.P., Cajun Pipeline Company, LLC, HSC Pipeline Partnership, L.P., Sorrento Pipeline Company, LLC, Enterprise Products Texas Operating L.P.,EPIK Gas Liquids LLC, EPIK Terminaling L.P., Baton Rouge Fractionators LLC, Baton Rouge Propylene Concentrator, LLC, Enterprise Gas Processing LLC, Enterprise NGL Pipelines LLC, Enterprise NGL Private Lines & Storage LLC, Enterprise Fractionation LLC, Enterprise Norco LLC, Enterprise LOU-TEX Propylene Pipeline L.P., Enterprise LOU-TEX NGL Pipeline L.P., Grand Isle Pipeline LLC., Mid-America Pipeline Company LLC, Seminole Pipeline Company, Wilprise Pipeline Company LLC, each of their parent, subsidiary and affiliated companies, partners and joint venturers, and each owner or joint owner of any facility operated by one or more of them, as their interests may appear, arising from the work to be performed under oral or written contract.

P. O. Box 573
Mont Belvieu, Texas 77580
Attention: Purchasing

4. Additional Terms for Work to be Performed in Louisiana

In all cases where Contractor's employees (defined to include Contractor's direct, borrowed, special or statutory employees) are covered by the Louisiana Worker's Compensation Act, La. R.S. 23:1021 et seq., Company and Contractor agree that all Work and operations performed by Contractor and its employees pursuant to the Contract are an integral part of and are essential to the ability of Company to generate Company's goods, products and services for purposes of La. R.S. 23:1061(A)(1). Furthermore, Company and Contractor agree that Company is the principal or statutory employer of Contractor's employees for purposes of La. R.S. 23:1061(A)(3). This provision is included for the sole purpose of establishing a statutory employer relationship to gain the benefits expressed in La.R.S. 23:1031 and La.R.S. 23:1061(a), and it is not intended to create an employer-employee relationship for any other purpose. Irrespective of Company's status as the statutory employer or special employer (as defined in La. R.S. 23:1031(c)) of Contractor's employees, Contractor shall remain primarily responsible for the payment of Louisiana Worker's Compensation benefits to its employees, and shall not be entitled to seek contribution for any such payments from Company.

This Section 4 applies to the extent, and only to the extent, that the laws of the State of Louisiana are applicable to any Work conducted under the terms and provisions of the Contract. In further consideration of the amounts or other consideration to be received by Contractor pursuant to the Contract, Company and Contractor agree that Contractor shall be responsible for the payment of all compensation benefits paid by Contractor and/or Contractor's underwriters. Contractor stipulates and agrees that Company shall be named as an alternate employer under any and all worker's compensation insurance coverage maintained by Contractor. Contractor acknowledges that the price or other consideration for said performance, service, work, or operations includes an amount necessary for Contractor to pay for such insurance coverage and stipulates and agrees that any such insurer (or the Contractor, if self-insured) shall agree to waive any and all rights of subrogation, contribution or indemnity against Company thereunder.

EXHIBIT VIII

CONSULTANT TERMS & CONDITIONS

A. Reports

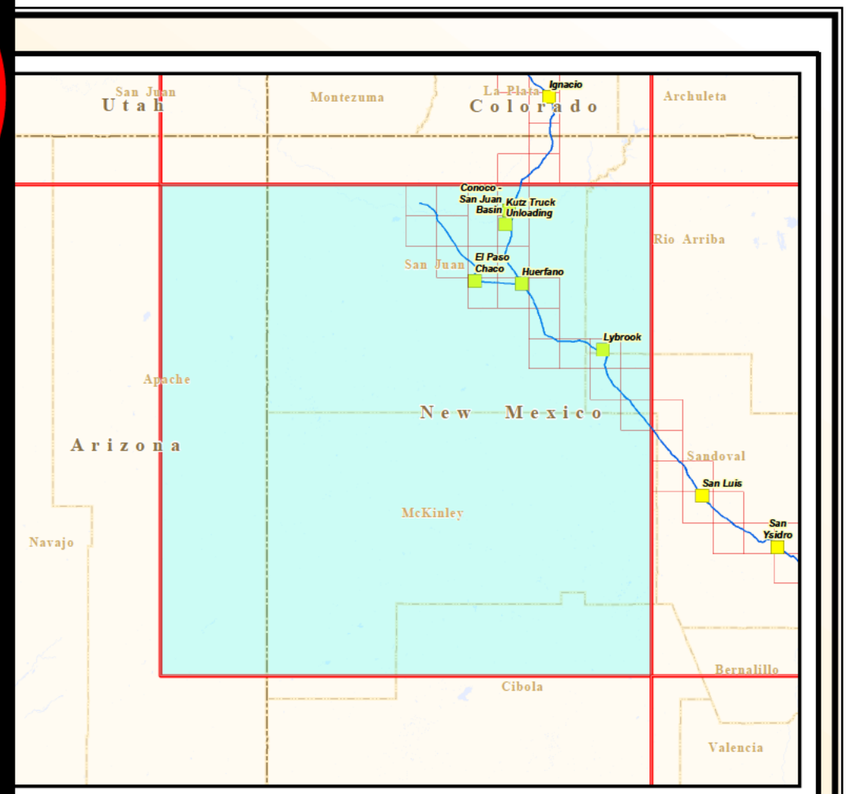
If any data, measurements, assessments, test results or analyses related to Company's facilities, operations, actual or proposed activities ("Data") or any interpretations thereof or recommendations based thereupon are to be contained in any letter, compilation, report or other document ("Report") prepared by Contractor for Company hereunder, Contractor shall submit the Report to Company in draft form for review and approval by Company before any Report in final form is prepared and issued by Contractor; and no Report shall be issued by Contractor in final form without such prior approval. Upon the completion of a Report in final form or upon a determination in Company's sole discretion that no Report shall be issued by Contractor with respect to any matter, Contractor shall destroy all drafts and preliminary versions of such Report. Company and Contractor hereby expressly agree and acknowledge that Contractor's services hereunder specifically exclude the provision of legal advice to Company, and Contractor shall refrain from expressing in any Report conclusions or opinions concerning Company's compliance with or violation of any statute, regulation, ordinance, rule or order of any federal, state or local governmental authority. Contractor shall employ no intemperate, exaggerated, speculative or inflammatory language in any Report and shall make only reasonable, accurate and truthful statements of fact, opinion and professional judgement.

B. Confidentiality

1. Contractor shall take all reasonable steps to safeguard Confidential Information against unauthorized disclosure and assure that the confidentiality provisions of this Contract are not violated.

2. If Contractor wishes to use third-party services requiring disclosure of Confidential Information to that third party, Recipient will notify Company, requesting that an appropriate confidentiality agreement be executed by Company with such third party. Company will advise Contractor in writing when it has concluded such a confidentiality agreement and authorize disclosure of Confidential Information by Contractor to such third party; provided, however, Company shall be under no obligation to enter into a confidentiality agreement with any third party referred to it by Contractor.

(b) (3), (b) (7)(F)



EPOLLC Liquid Pipelines

- Aotive
- Idle
- HCA / Immediate Response
- Faoilities
- Highly Populated Area
- Other Populated Area

Geography

- Interstate Highway
- US Highway
- Water Body
- State Line
- County Lines
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation - Page Location

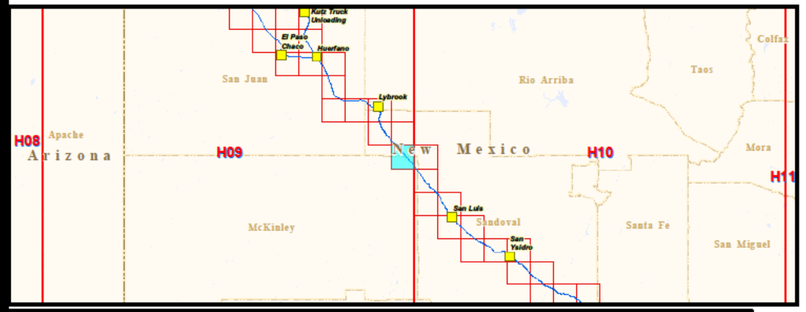
21/2008

10 0 10 20 Miles

Map Number **H09**

rld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
136	16	Segment 8	Enterprise Products Operating LLC
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

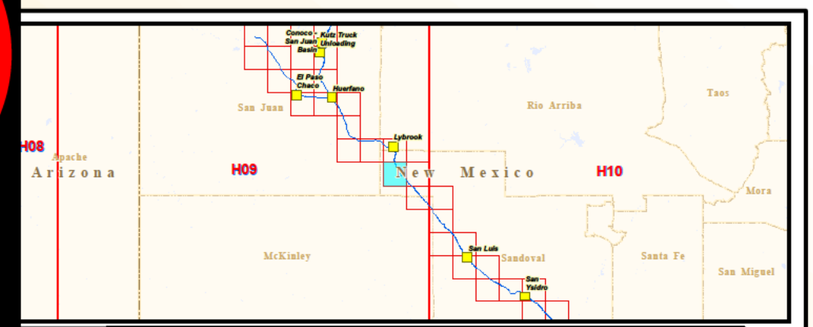
20/2008

1 0 1 2
Miles

Map Number
H09_0144

rld Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
6	16	Segment 8	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

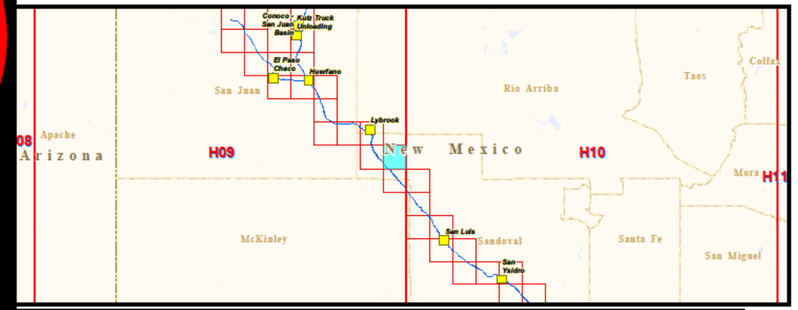
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **H09_0159**

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
6	16	Segment 8	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

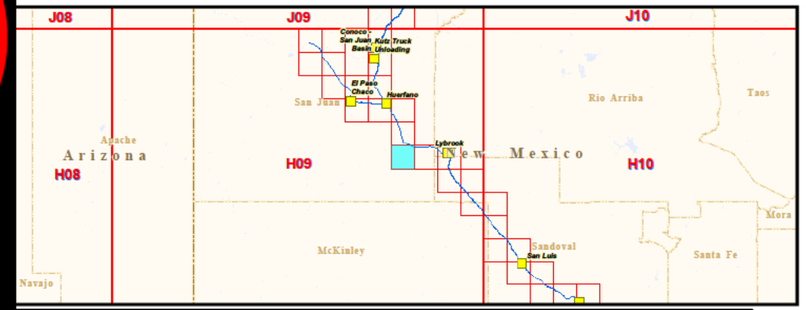
0/2008

1 0 1 2
Miles

Map Number
H09_0160

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

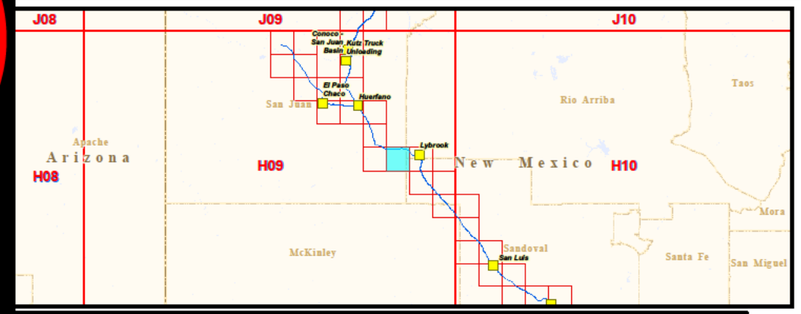
0/2008

Miles 1 0 1 2

Map Number **H09_0173**

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

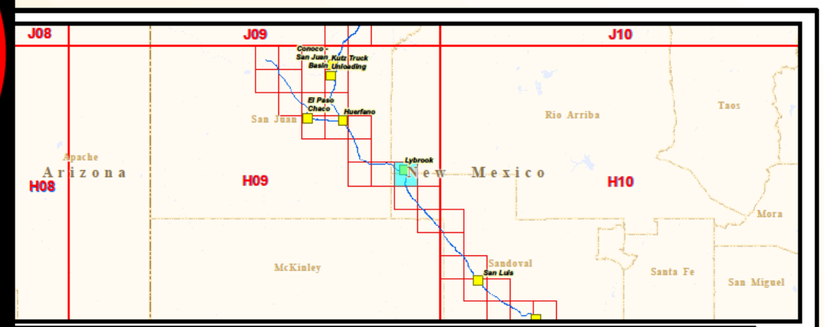
0/2008

Miles 1 0 1 2

Map Number
H09_0174

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
136	16	Segment 8	Enterprise Products Operating LLC
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

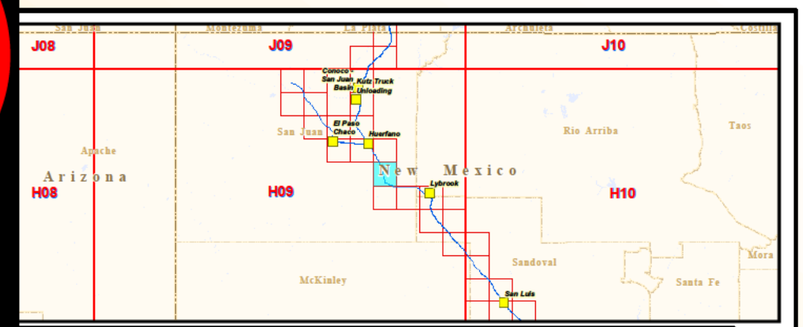
20/2008

1 0 1 2
Miles

Map Number
H09_0175

Id Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

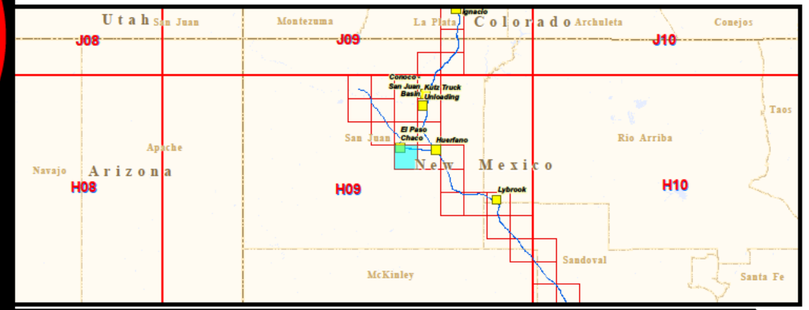
/2008

Miles 1 0 1 2

Map Number **H09_0189**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
696	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC
697	10.75	El Paso Chaco	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

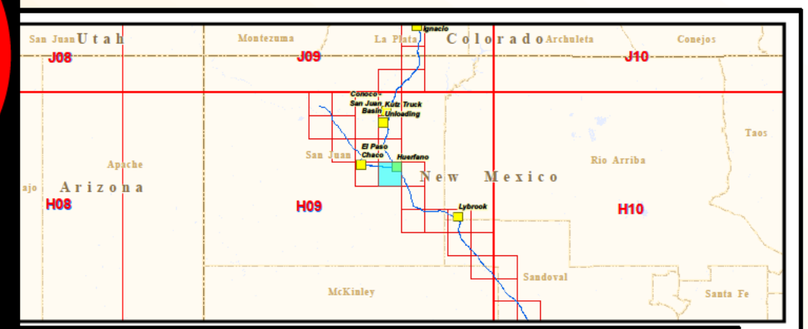
20/2008

1 0 1 2
Miles

Map Number
H09_0203

Id Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	10.75	El Paso Chaco	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
	16	Rocky Mountain Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

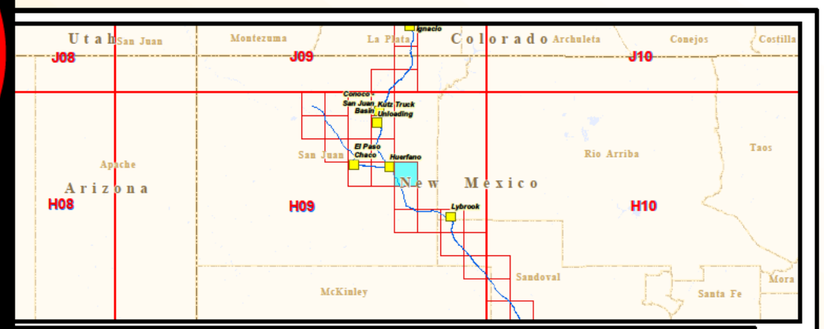
/2008

1 0 1 2
Miles

Map Number
H09_0204

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

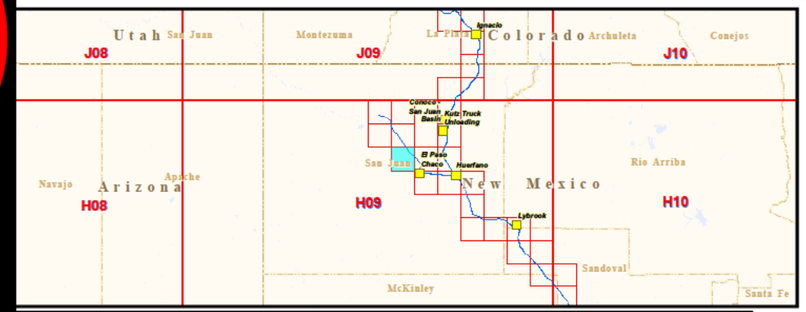
20/2008

1 0 1 2
Miles

Map Number
H09_0205

Id Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
96	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

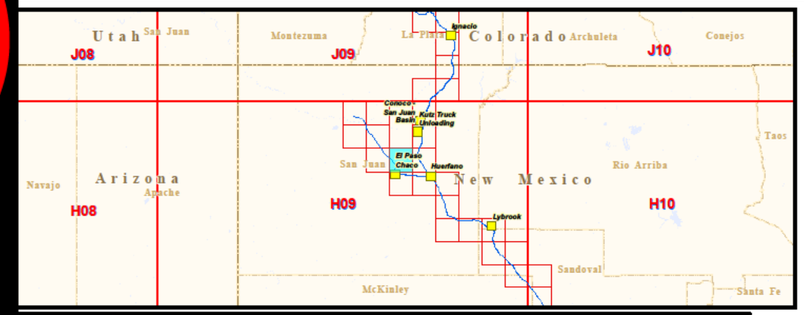
EPOLLC - Liquids HCA Validation

0/2008

Miles 1 0 1 2

Map Number **H09_0218**

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
96	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

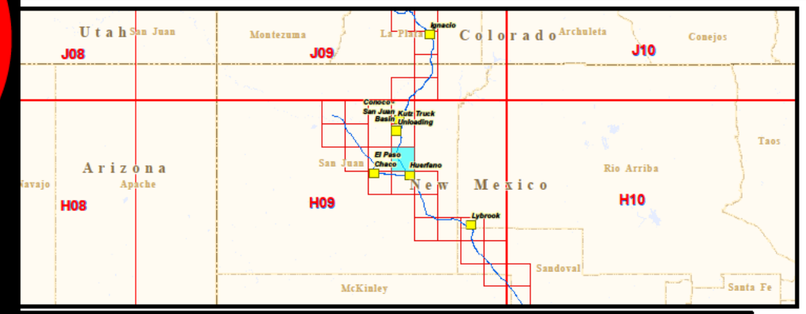
0/2008

Miles 1 0 1 2

Map Number **H09_0219**

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
23	16	Rocky Mountain Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

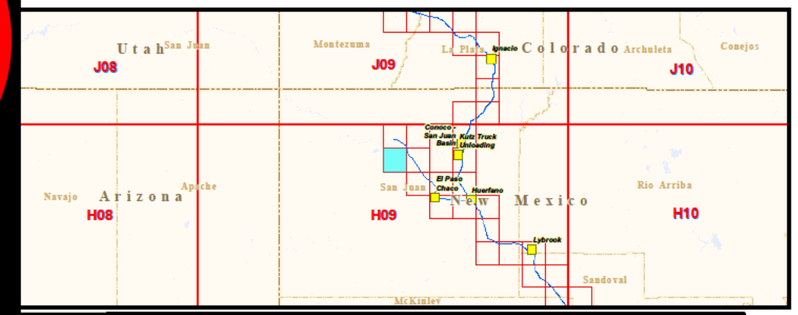
0/2008

1 0 1 2
Miles

Map Number
H09_0220

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
6	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

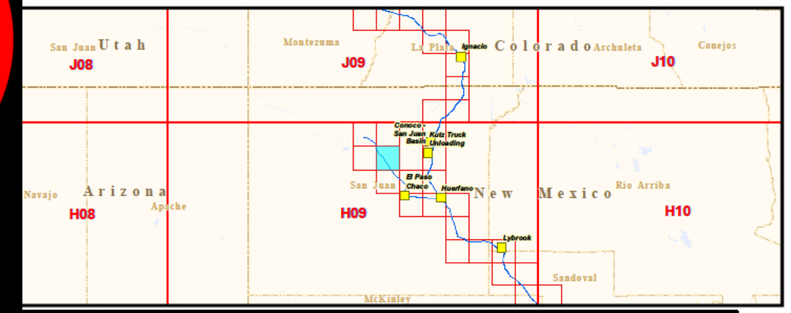
/2008

1 0 1 2
Miles

Map Number
H09_0233

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines

- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)

- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography

- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

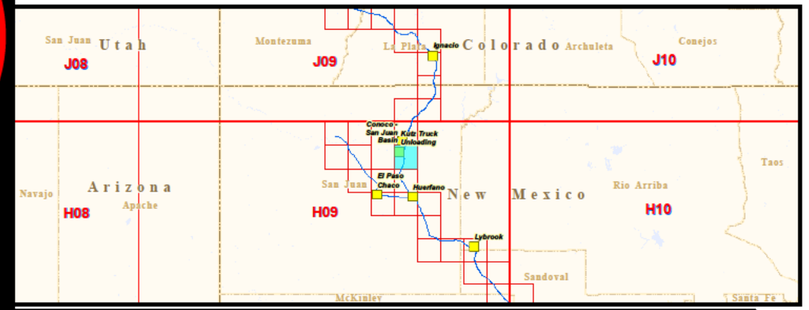
/2008

Miles 1 0 1 2

Map Number
H09_0234

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
723	16	Rocky Mountain Loop	Enterprise Products Operating LLC
744	8.625	El Paso - Bloomfield Lateral (IDLE)	Enterprise Products Operating LLC
744	6.625	El Paso - Bloomfield Lateral	Enterprise Products Operating LLC
744	8.625	El Paso - Bloomfield Lateral	Enterprise Products Operating LLC
745	8.625	Bloomfield Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

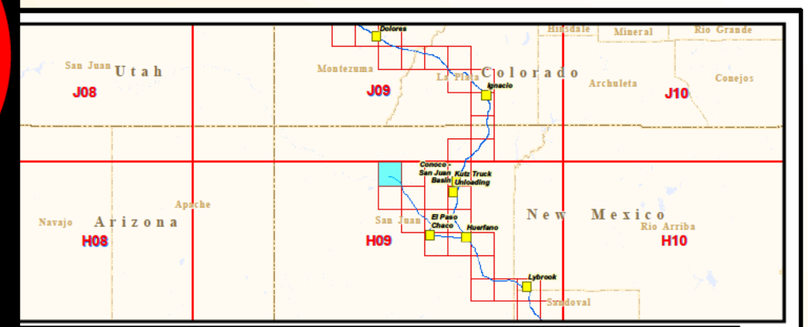
20/2008

1 0 1 2
Miles

Map Number
H09_0236

Id Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

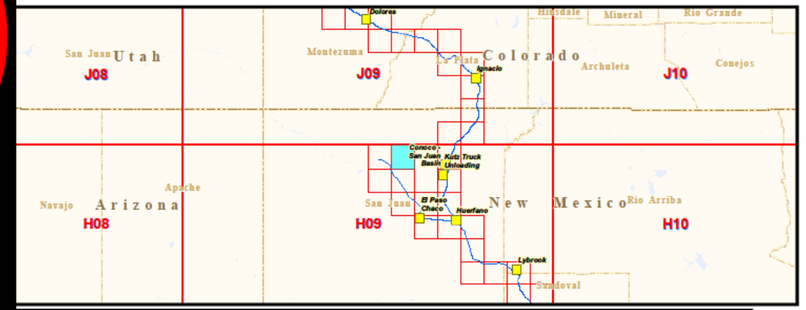
/2008

1 0 1 2
Miles

Map Number
H09_0249

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
96	3.5	Western Gas - San Juan River Plant to El Paso Chaco Plant	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

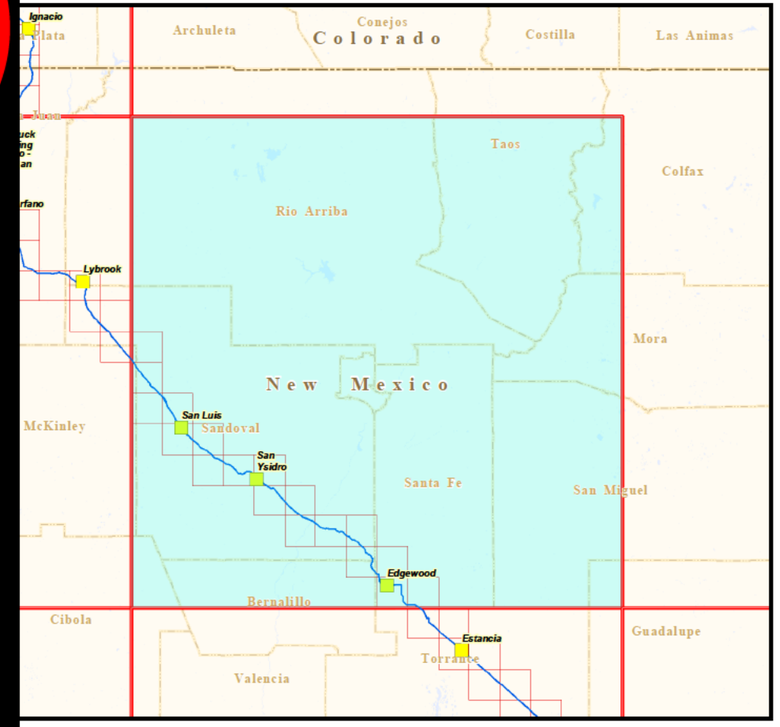
0/2008

1 0 1 2 Miles

Map Number **H09_0250**

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



EPOLLC Liquid Pipelines

- Aotive
- Idle
- HCA / Immediate Response
- Faoilities
- Highly Populated Area
- Other Populated Area

Geography

- Interstate Highway
- US Highway
- Water Body
- State Line
- County Lines
- Airports

EPCO, INC.

Pipeline Integrity Department

EPOLLC - Liquids HCA Validation - Page Location

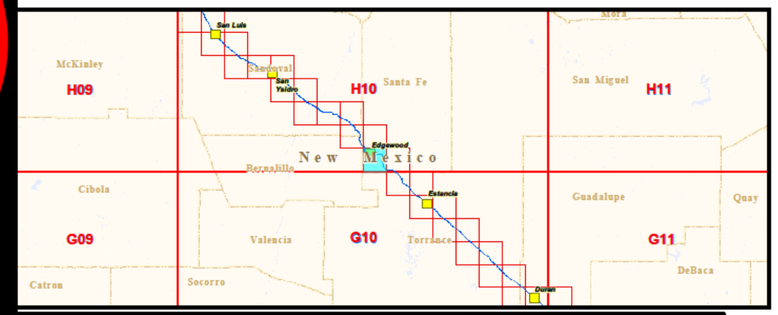
008

10 0 10 20 Miles

Map Number **H10**

rcator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



#	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

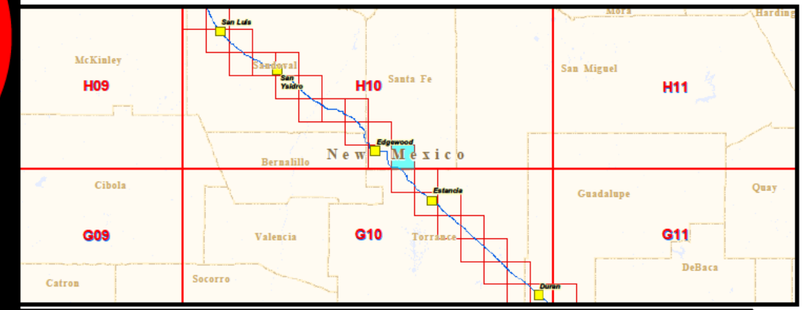
PCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

2008 Miles 1 0 1 2

Map Number **H10_0009**

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

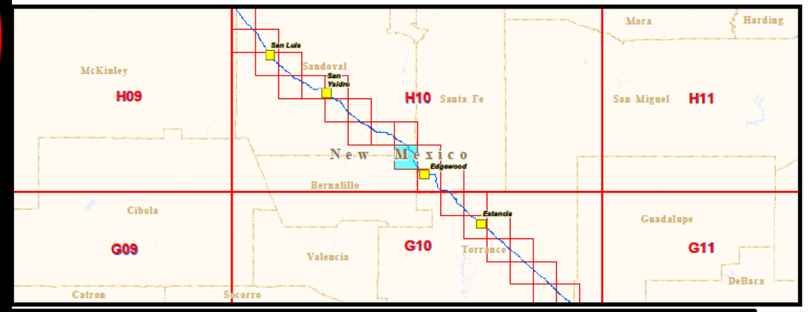
0/2008

Miles 1 0 1 2

Map Number
H10_0010

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

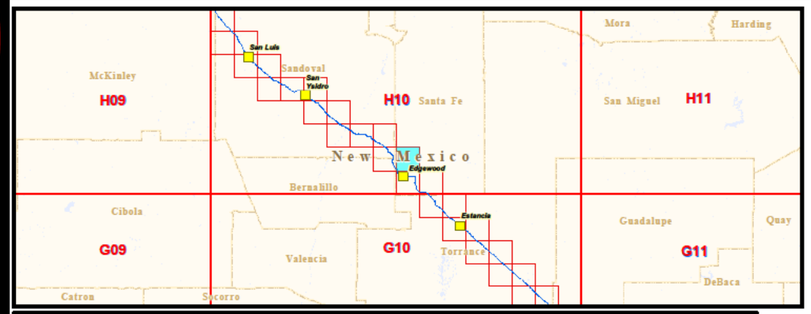
20/2008

Miles 1 0 1 2

Map Number
H10_0024

rd Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

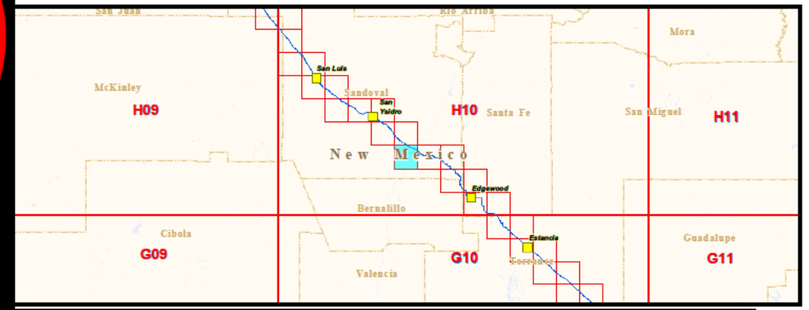
EPOLLC - Liquids HCA Validation

/20/2008

1 0 1 2
Miles

Map Number
H10_0025

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
137	16	Segment 9	Enterprise Products Operating LLC
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

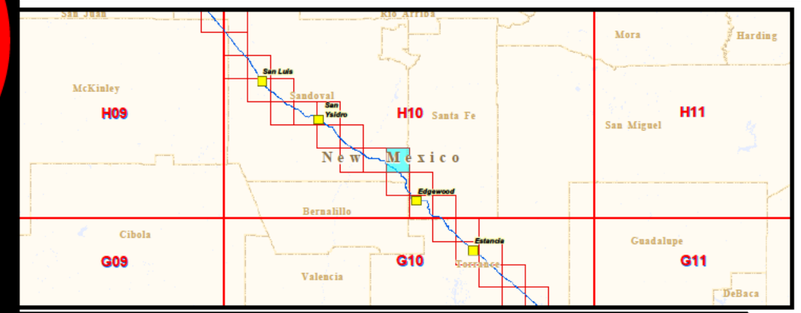
EPOLLC - Liquids HCA Validation

20/2008

1 0 1 2
Miles

Map Number
H10_0038

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

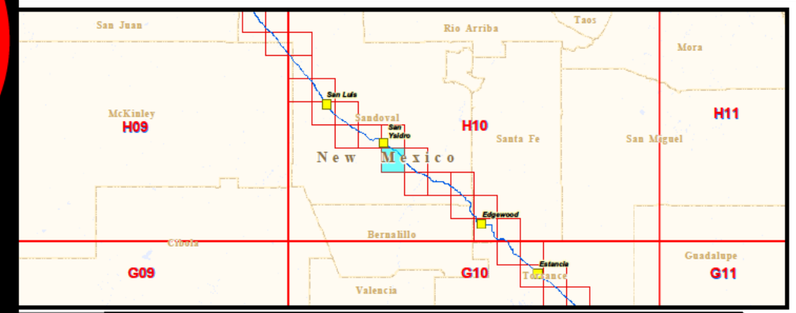
0/2008

1 0 1 2
Miles

Map Number
H10_0040

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
7	16	Segment 9	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

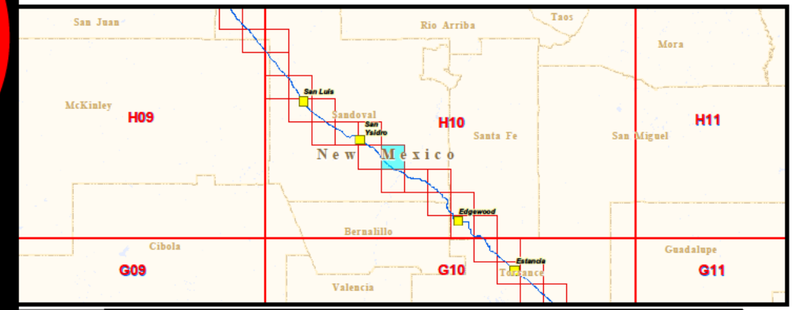
/2008

Miles 1 0 1 2

Map Number
H10_0053

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
7	16	Segment 9	Enterprise Products Operating LLC
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

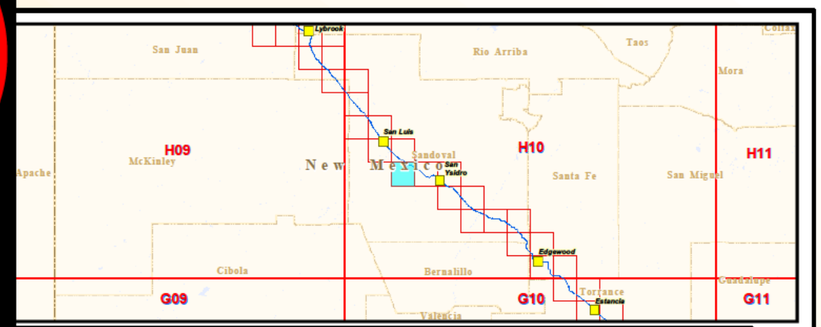
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number H10_0054

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
95	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
99	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
01	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

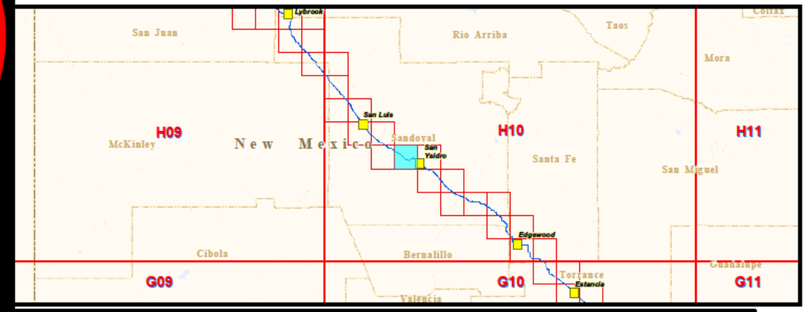
0/2008

1 0 1 2 Miles

Map Number **H10_0067**

d Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

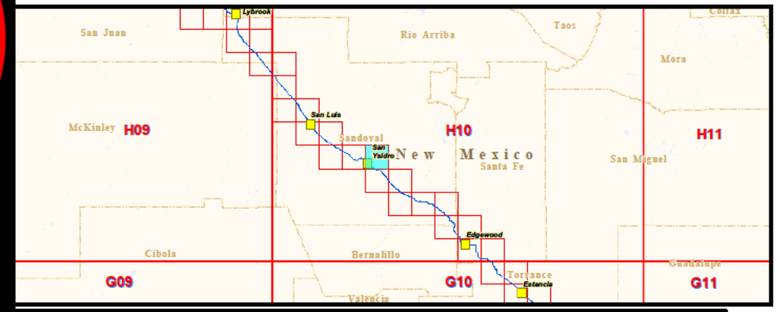
EPOLLC - Liquids HCA Validation

20/2008

Miles 1 0 1 2

Map Number
H10_0068

(b) (3), (b) (7)(F)



#	Diam.	Line Name	Operator
	16	Segment 9	Enterprise Products Operating LLC
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

PCO, INC. **Pipeline Integrity Department**

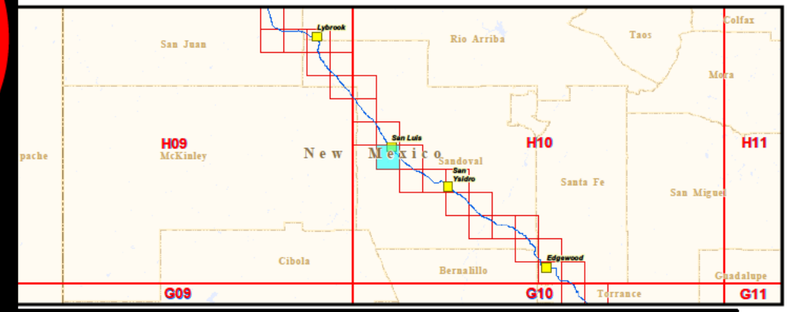
EPOLLC - Liquids HCA Validation

2008 Miles 1 0 1 2

Map Number **H10_0069**

rcator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	10.75	Four Corners Lateral Loop	Enterprise Products Operating LLC
	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

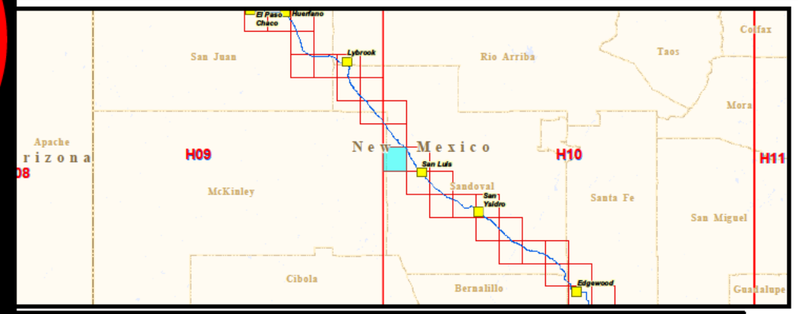
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **H10_0082**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ine #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

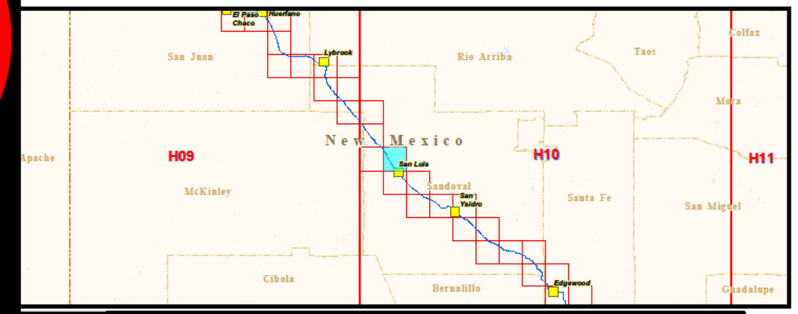
0/2008

1 0 1 2
Miles

Map Number
H10_0097

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



ne #	Diam.	Line Name	Operator
5	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
9	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
1	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

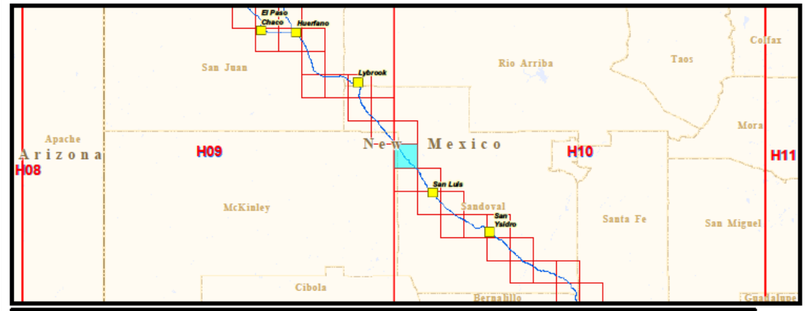
EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number
H10_0098

Mercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

(b) (3), (b) (7)(F)



Line #	Diam.	Line Name	Operator
695	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
699	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
701	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

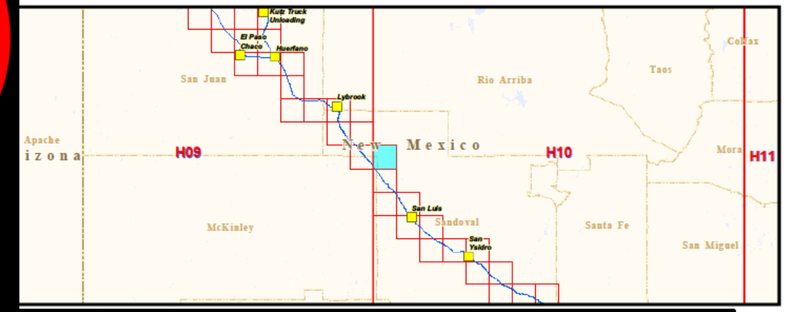
EPOLLC - Liquids HCA Validation

2/20/2008

Miles 1 0 1 2

Map Number
H10_0113

(b) (3), (b) (7)(F)



e #	Diam.	Line Name	Operator
	12.75	Four Corners Pipeline	Enterprise Products Operating LLC
	8.625	Four Corners Lateral - White Lakes to Kutz	Enterprise Products Operating LLC
	12.75	Four Corners Lateral Loop	Enterprise Products Operating LLC

EPOLLC Liquid Pipelines
- Active
- Idle
- Facilities
- Valves
- Aerial Markers

High Consequence Area (HCA)
- HCA / Immediate Response
- Highly Populated Area
- Other Populated Area
- DrinkingWater
- Ecological
- Water Transport Path
- Overland Spread Path

Geography
- Interstate Highway
- US Highway
- State Highway
- Other Roads
- Railroad
- River/Stream
- CNW
- Water Body
- State Line
- County Lines
- Township Range
- Section/Texas Abstract
- Airports

EPCO, INC. **Pipeline Integrity Department**

EPOLLC - Liquids HCA Validation

/2008 Miles 1 0 1 2

Map Number **H10_0129**

ercator Units: Feet Datum: WGS84 Prepared By: Pipeline Integrity - GIS

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $1,000,000 as provided in 49 USC 60122.

OMB NO: 2137-0047

EXPIRATION DATE: 1/31/2014

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

ACCIDENT REPORT – HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date _____

No. _____
(DOT Use Only)

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

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 PHMSA Pipeline Safety Community Web Page at http://www.phmsa.dot.gov/pipeline/library/forms. Note: Certain low consequence accidents only require the information indicated in the shaded fields.*

PART A – KEY REPORT INFORMATION

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

*1. Operator's OPS-issued Operator Identification Number (OPID): /___/___/___/___/___/___/

*2. Name of Operator: _____

*3. Address of Operator:

*3.a ____
(Street Address)

*3.b
(City)

*3.c State: /___/___/

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

*4. Local time *(24-hr clock)* and date of the Accident:

/___/___/___/___/ Hour /___/___/ Month /___/___/ Day /___/___/ Year

*5. Location of Accident:
Latitude: /___/___/ . /___/___/___/___/___/
Longitude: -/___/___/___/ . /___/___/___/___/___/

6. National Response Center Report Number (if applicable):
/___/___/___/___/___/___/___/

7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):

/___/___/___/___/ Hour /___/___/ Month /___/___/ Day /___/___/ Year

*8. Commodity released: *(select only one, based on predominant volume released)*

☐ Crude Oil

☐ Refined and/or Petroleum Product (non-HVL) which is a Liquid at Ambient Conditions
- ○ Gasoline (non-Ethanol)
- ○ Diesel, Fuel Oil, Kerosene, Jet Fuel
- ○ Mixture of Refined Products (transmix or other mixture)
- ○ Other ⇨ Name: _____

☐ HVL or Other Flammable or Toxic Fluid which is a Gas at Ambient Conditions
- ○ Anhydrous Ammonia
- ○ LPG (Liquefied Petroleum Gas) / NGL (Natural Gas Liquid)
- ○ Other HVL ⇨ Name: _____

☐ CO_2 (Carbon Dioxide)

☐ Biofuel / Alternative Fuel (including ethanol blends)
- ○ Fuel Grade Ethanol
- ○ Ethanol Blend ⇨ % Ethanol: /___/___/
- ○ Biodiesel ⇨ Blend (e.g. B2, B20, B100): B/___/___/___/
- ○ Other ⇨ Name: _____

*9. Estimated volume of commodity released unintentionally: /___/___/___/,/___/___/___/.___/___/ Barrels

*10. Estimated volume of intentional and/or controlled release/blowdown: /___/___/___/,/___/___/___/.___/___/ Barrels
(only reported for HVL and CO_2 Commodities)

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

*12. Were there fatalities? ○ Yes ○ No

If Yes, specify the number in each category:

*12.a Operator employees /___/___/___/___/

*12.b Contractor employees working for the Operator /___/___/___/___/

*12.c Non-Operator emergency responders /___/___/___/___/

*12.d Workers working on the right-of-way, but NOT associated with this Operator /___/___/___/___/

*12.e General public /___/___/___/___/

12.f Total fatalities (sum of above) /___/___/___/___/

*13. Were there injuries requiring inpatient hospitalization? ○ Yes ○ No

If Yes, specify the number in each category:

*13.a Operator employees /___/___/___/___/

*13.b Contractor employees working for the Operator /___/___/___/___/

*13.c Non-Operator emergency responders /___/___/___/___/

*13.d Workers working on the right-of-way, but NOT associated with this Operator /___/___/___/___/

*13.e General public /___/___/___/___/

13.f Total injuries (sum of above) /___/___/___/___/

14. Was the pipeline/facility shut down due to the Accident?

○ Yes ○ No ⇨ Explain: _____

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

14.a Local time and date of shutdown /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

14.b Local time pipeline/facility restarted /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year) ○ Still shut down* *(*Supplemental Report required)*

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

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

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

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

18.a Local time Operator identified Accident /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

18.b Local time Operator resources arrived on site /___/___/___/___/ (Hour) /___/___/ (Month) /___/___/ (Day) /___/___/ (Year)

PART B – ADDITIONAL LOCATION INFORMATION

*1. Was the origin of the Accident onshore?
○ Yes *(Complete Questions 2-12)* ○ No *(Complete Questions 13-15)*

If **Onshore**:

*2. State: /___/___/

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

4._____ City 5_____ County or Parish

6. Operator-designated location: *(select only one)*
☐ Milepost/Valve Station *(specify in shaded area below)*
☐ Survey Station No. *(specify in shaded area below)*

/ / / / / / / / / / / / / /

7. Pipeline/Facility name:

8. Segment name/ID:

*9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)? ○ Yes ○ No

*10. Location of Accident: *(select only one)*
☐ Totally contained on Operator-controlled property
☐ Originated on Operator-controlled property, but then flowed or migrated off the property
☐ Pipeline right-of-way

*11. Area of Accident (as found): *(select only one)*
☐ Tank, including attached appurtenances
☐ Underground ⇨ Specify: ○ Under soil
○ Under a building ○ Under pavement
○ Exposed due to excavation
○ In underground enclosed space (e.g., vault)
○ Other _____
Depth-of-Cover (in): /___/,/___/___/___/
☐ Aboveground ⇨ Specify:
○ Typical aboveground facility piping or appurtenance
○ Overhead crossing
○ In or spanning an open ditch
○ Inside a building ○ Inside other enclosed space
○ Other _____
☐ Transition Area ⇨ Specify: ○ Soil/air interface ○ Wall sleeve ○ Pipe support or other close contact area
○ Other _____

*12. Did Accident occur in a crossing?: ○ Yes ○ No
If Yes, specify type below:
☐ Bridge crossing ⇨ Specify: ○ Cased ○ Uncased
☐ Railroad crossing ⇨ *(select all that apply)*
○ Cased ○ Uncased ○ Bored/drilled
☐ Road crossing ⇨ *(select all that apply)*
○ Cased ○ Uncased ○ Bored/drilled
☐ Water crossing
⇨ Specify: ○ Cased ○ Uncased
Name of body of water, if commonly known:
_____
Approx. water depth (ft) at the point of the Accident:
/___/,/___/___/___/
(select only one of the following)
○ Shoreline/Bank crossing
○ Below water, pipe in bored/drilled crossing
○ Below water, pipe buried below bottom (NOT in bored/drilled crossing)
○ Below water, pipe on or above bottom

If **Offshore**:

*13. Approximate water depth (ft.) at the point of the Accident:
/___/___/,/___/___/___/

*14. Origin of Accident:
☐ In State waters
⇨ Specify: State: /___/___/
Area: _____
Block/Tract #: /___/___/___/___/___/
Nearest County/Parish: _____
☐ On the Outer Continental Shelf (OCS)
⇨ Specify: Area: _____
Block #: /___/___/___/___/___/

*15. Area of Accident: *(select only one)*
☐ Shoreline/Bank crossing or shore approach
☐ Below water, pipe buried or jetted below seabed
☐ Below water, pipe on or above seabed
☐ Splash Zone of riser
☐ Portion of riser outside of Splash Zone, including riser bend
☐ Platform

PART C – ADDITIONAL FACILITY INFORMATION

*1. Is the pipeline or facility:
- ☐ Interstate
- ☐ Intrastate

*2. Part of system involved in Accident: *(select only one)*
- ☐ Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances ⇨ ○ Atmospheric or Low Pressure ○ Pressurized
- ☐ Onshore Terminal/Tank Farm Equipment and Piping
- ☐ Onshore Equipment and Piping Associated with Belowground Storage
- ☐ Onshore Pump/Meter Station Equipment and Piping
- ☐ Onshore Pipeline, Including Valve Sites
- ☐ Offshore Platform/Deepwater Port, Including Platform-mounted Equipment and Piping
- ☐ Offshore Pipeline, Including Riser and Riser Bend

*3. Item involved in Accident: *(select only one)*

☐ Pipe ⇨ Specify: ○ Pipe Body ○ Pipe Seam

3.a Nominal diameter of pipe (in): /__/__/./__/__/__/

3.b Wall thickness (in): /__/./__/__/__/

3.c SMYS (Specified Minimum Yield Strength) of pipe (psi): /__/__/__/,/__/__/__/

3.d Pipe specification: _____

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

3.f Pipe manufacturer: _____

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

3.h Pipeline coating type at point of Accident ⇨ Specify:
- ○ Fusion Bonded Epoxy
- ○ Coal Tar
- ○ Asphalt
- ○ Polyolefin
- ○ Extruded Polyethylene
- ○ Field Applied Epoxy
- ○ Cold Applied Tape
- ○ Paint
- ○ Composite
- ○ None
- ○ Other _____

☐ Weld, including heat-affected zone ⇨ Specify: ○ Pipe Girth Weld ○ Other Butt Weld ○ Fillet Weld ○ Other_____

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

☐ Valve ○ Mainline ⇨ Specify: ○ Butterfly ○ Check ○ Gate ○ Plug ○ Ball ○ Globe ○ Other _____

3.i Mainline valve manufacturer: _____

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

- ○ Relief Valve
- ○ Auxiliary or Other Valve

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

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

☐ Other _____

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

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

☐ Carbon Steel

☐ Material other than Carbon Steel ⇨ Specify: _____

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

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

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

☐ Rupture ⇨ Select Orientation: O Circumferential O Longitudinal O Other _____

Approx. size: /__/__/__/__/./__/ in. (widest opening) by /__/__/__/__/__/./__/in. (length circumferentially or axially)

☐ Overfill or Overflow

☐ Other ⇨ Describe: _____

PART D – ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact: O Yes O No

1.a If Yes, specify all that apply:

☐ Fish/aquatic

☐ Birds

☐ Terrestrial

*2. Soil contamination: O Yes O No

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

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

4.a If Yes, specify all that apply:

☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

*5. Water contamination: O Yes ⇨ *(Complete 5.a – 5.c below)* O No

*5.a Specify all that apply:

☐ Ocean/Seawater

☐ Surface

☐ Groundwater

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

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

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

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

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

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

☐ Commercially Navigable Waterway
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
O Yes O No

☐ High Population Area
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
O Yes O No

☐ Other Populated Area
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
O Yes O No

☐ Unusually Sensitive Area (USA) – Drinking Water
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
O Yes O No

☐ Unusually Sensitive Area (USA) – Ecological
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?
O Yes O No

*8. Estimated Property Damage:

8.a Estimated cost of public and non-Operator private property damage
$ /___/___/___/,/___/___/___/,/___/___/___/

8.b Estimated cost of commodity lost $ /___/___/___/,/___/___/___/,/___/___/___/

8.c Estimated cost of Operator's property damage & repairs $ /___/___/___/,/___/___/___/,/___/___/___/

8.d Estimated cost of Operator's emergency response $ /___/___/___/,/___/___/___/,/___/___/___/

8.e Estimated cost of Operator's environmental remediation $ /___/___/___/,/___/___/___/,/___/___/___/

8.f Estimated other costs $ /___/___/___/,/___/___/___/,/___/___/___/

Describe

8.g Total estimated property damage (sum of above) $ /___/___/___/,/___/___/___/,/___/___/___/

PART E – ADDITIONAL OPERATING INFORMATION

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

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

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

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

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

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

*4.a Did the pressure exceed this established pressure restriction? ○ Yes ○ No

*4.b Was this pressure restriction mandated by PHMSA or the State? ○ PHMSA ○ State ○ Not mandated

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

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

5.a Type of upstream valve used to initially isolate release source: ○ Manual ○ Automatic ○ Remotely Controlled

5.b Type of downstream valve used to initially isolate release source: ○ Manual ○ Automatic ○ Remotely Controlled ○ Check Valve

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

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

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

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

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

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

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

*5.f Function of pipeline system: *(select only one)*

☐ > 20% SMYS Regulated Trunkline/Transmission
☐ ≤ 20% SMYS Regulated Trunkline/Transmission
☐ > 20% SMYS Regulated Gathering
☐ ≤ 20% SMYS Regulated Gathering

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

☐ No

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

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

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

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

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

☐ No

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

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

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

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

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

☐ CPM leak detection system or SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations)
☐ Static Shut-in Test or Other Pressure or Leak Test
☐ Controller
☐ Air Patrol
☐ Notification from Public
☐ Notification from Third Party that caused the Accident
☐ Local Operating Personnel, including contractors
☐ Ground Patrol by Operator or its contractor
☐ Notification from Emergency Responder
☐ Other _____

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

○ Operator employee ○ Contractor working for the Operator

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

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

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

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

_____
_____
_____

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

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

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

_____
_____
_____

○ Investigation identified no control room issues
○ Investigation identified no controller issues
○ Investigation identified incorrect controller action or controller error
○ Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response
○ Investigation identified incorrect procedures
○ Investigation identified incorrect control room equipment operation
○ Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response
○ Investigation identified areas other than those above ⇨ Descr be: _____

_____
_____
_____

PART F – DRUG & ALCOHOL TESTING INFORMATION

*1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?

O No

O Yes ⇨ *1.a Specify how many were tested: /___/___/

*1.b Specify how many failed: /___/___/

*2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?

O No

O Yes ⇨ *2.a Specify how many were tested: /___/___/

*2.b Specify how many failed: /___/___/

PART G – APPARENT CAUSE

Select only one box from PART G in the shaded column on the left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing, or root causes of the Accident in the narrative (PART H).

G1 - Corrosion Failure – *only one **sub-cause** can be picked from shaded left-hand column

☐ **External Corrosion**

*1. Results of visual examination:

O Localized Pitting O General Corrosion

O Other _____

*2. Type of corrosion: *(select all that apply)*

O Galvanic O Atmospheric O Stray Current O Microbiological O Selective Seam

O Other _____

*3. The type(s) of corrosion selected in Question 2 is based on the following: *(select all that apply)*

O Field examination O Determined by metallurgical analysis

O Other _____

*4. Was the failed item buried under the ground?

O Yes ⇨ *4.a Was failed item considered to be under cathodic protection at the time of the Accident?

O Yes ⇨ Year protection started: /___/___/___/___/

O No

*4.b Was shielding, tenting, or disbonding of coating evident at the point of the Accident?

O Yes O No

*4.c Has one or more Cathodic Protection Survey been conducted at the point of the Accident?

O Yes, CP Annual Survey ⇨ Most recent year conducted: /___/___/___/___/

O Yes, Close Interval Survey ⇨ Most recent year conducted: /___/___/___/___/

O Yes, Other CP Survey ⇨ Most recent year conducted: /___/___/___/___/

O No

O No ⇨ 4.d Was the failed item externally coated or painted? O Yes O No

*5. Was there observable damage to the coating or paint in the vicinity of the corrosion?

O Yes O No

☐ **Internal Corrosion**

*6. Results of visual examination:
O Localized Pitting O General Corrosion O Not cut open
O Other _____

*7. Cause of corrosion: *(select all that apply)*
O Corrosive Commodity O Water drop-out/Acid O Microbiological O Erosion
O Other _____

*8. The cause(s) of corrosion selected in Question 7 is based on the following: *(select all that apply)*
O Field examination O Determined by metallurgical analysis
O Other _____

*9. Location of corrosion: *(select all that apply)*
O Low point in pipe O E bow O Other_____

*10. Was the commodity treated with corrosion inhibitors or biocides? O Yes O No

11. Was the interior coated or lined with protective coating? O Yes O No

12. Were cleaning/dewatering pigs (or other operations) routinely utilized?
O Not applicable - Not mainline pipe O Yes O No

13. Were corrosion coupons routinely utilized?
O Not applicable - Not mainline pipe O Yes O No

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

14. List the year of the most recent inspections:
14.a API Std 653 Out-of-Service Inspection /__/__/__/__/ O No Out-of-Service Inspection completed
14.b API Std 653 In-Service Inspection /__/__/__/__/ O No In-Service Inspection completed

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

15. Has one or more internal inspection tool collected data at the point of the Accident?
O Yes O No

15.a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:
O Magnetic Flux Leakage Tool /__/__/__/__/
O Ultrasonic /__/__/__/__/
O Geometry /__/__/__/__/
O Caliper /__/__/__/__/
O Crack /__/__/__/__/
O Hard Spot /__/__/__/__/
O Combination Tool /__/__/__/__/
O Transverse Field/Triaxial /__/__/__/__/
O Other _____ /__/__/__/__/

16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?
O Yes ⇨ Most recent year tested: /__/__/__/__/ Test pressure (psig): /__/__/__/__/__/
O No

17. Has one or more Direct Assessment been conducted on this segment?
O Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: /__/__/__/__/
O Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: /__/__/__/__/
O No

18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?
O Yes O No

18.a If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:
O Radiography /__/__/__/__/
O Guided Wave Ultrasonic /__/__/__/__/
O Handheld Ultrasonic Tool /__/__/__/__/
O Wet Magnetic Particle Test /__/__/__/__/
O Dry Magnetic Particle Test /__/__/__/__/
O Other _____ /__/__/__/__/

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

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

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

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

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

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

☐ **Excavation Damage by Operator (First Party)**	
☐ **Excavation Damage by Operator's Contractor (Second Party)**	
☐ **Excavation Damage by Third Party**	
☐ **Previous Damage due to Excavation Activity**	**Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.**

1. Has one or more internal inspection tool collected data at the point of the Accident?
○ Yes ○ No

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

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

2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? ○ Yes ○ No

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

○ Yes ⇨ Most recent year tested: /__/__/__/__/
Test pressure (psig): /__/__/,/__/__/__/

○ No

4. Has one or more Direct Assessment been conducted on the pipeline segment?

○ Yes, and an investigative dig was conducted at the point of the Accident
⇨ Most recent year conducted: /__/__/__/__/

○ Yes, but the point of the Accident was not identified as a dig site
⇨ Most recent year conducted: /__/__/__/__/

○ No

5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?
O Yes O No

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

O Radiography	/__/__/__/__/
O Guided Wave Ultrasonic	/__/__/__/__/
O Handheld Ultrasonic Tool	/__/__/__/__/
O Wet Magnetic Particle Test	/__/__/__/__/
O Dry Magnetic Particle Test	/__/__/__/__/
O Other _____	/__/__/__/__/

Complete the following if Excavation Damage by Third Party is selected as the sub-cause.

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

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

Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.

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

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

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

☐ Private ⇨ Specify: O Private Landowner O Private Business O Private Easement

☐ Pipeline Property/Easement
☐ Power/Transmission Line
☐ Railroad
☐ Dedicated Public Utility Easement
☐ Federal Land
☐ Data not collected
☐ Unknown/Other

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

O Contractor O County O Developer O Farmer O Municipality O Occupant
O Railroad O State O Utility O Data not collected O Unknown/Other

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

O Auger O Backhoe/Trackhoe O Boring O Drilling O Directional Drilling
O Explosives O Farm Equipment O Grader/Scraper O Hand Tools O Milling Equipment
O Probing Device O Trencher O Vacuum Equipment O Data not collected O Unknown/Other

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

O Agriculture O Cable TV O Curb/Sidewalk O Building Construction O Building Demolition
O Drainage O Driveway O Electric O Engineering/Surveying O Fencing
O Grading O Irrigation O Landscaping O Liquid Pipeline O Milling
O Natural Gas O Pole O Public Transit Authority O Railroad Maintenance O Road Work
O Sewer (Sanitary/Storm) O Site Development O Steam O Storm Drain/Culvert O Street Light
O Telecommunications O Traffic Signal O Traffic Sign O Water O Waterway Improvement
O Data not collected O Unknown/Other

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

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

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

*13. Type of Locator: O Utility Owner O Contract Locator O Data not collected O Unknown/Other

*14. Were facility locate marks vis ble in the area of excavation? O No O Yes O Data not collected O Unknown/Other

*15. Were facilities marked correctly? O No O Yes O Data not collected O Unknown/Other

*16. Did the damage cause an interruption in service? O No O Yes O Data not collected O Unknown/Other

*16.a If Yes, specify duration of the interruption: / / / / / hours

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

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

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

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

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

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

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

☐ One-Call Notification Center Error

☐ Abandoned Facility

☐ Deteriorated Facility

☐ Previous Damage

☐ Data Not Collected

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

_____

G4 - Other Outside Force Damage - *only one **sub-cause** can be picked from shaded left-hand column

☐ **Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Accident**	
☐ **Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation**	1. Vehicle/Equipment operated by: *(select only one)* O Operator O Operator's Contractor O Third Party
☐ **Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring**	*2. Select one or more of the following IF an extreme weather event was a factor: O Hurricane O Tropical Storm O Tornado O Heavy Rains/Flood O Other _____
☐ **Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation**	
☐ **Electrical Arcing from Other Equipment or Facility**	
☐ **Previous Mechanical Damage NOT Related to Excavation**	**Complete Questions 3-7 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.** 3. Has one or more internal inspection tool collected data at the point of the Accident? O Yes O No 3.a If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: O Magnetic Flux Leakage /__/__/__/__/ O Ultrasonic /__/__/__/__/ O Geometry /__/__/__/__/ O Caliper /__/__/__/__/ O Crack /__/__/__/__/ O Hard Spot /__/__/__/__/ O Combination Tool /__/__/__/__/ O Transverse Field/Triaxial /__/__/__/__/ O Other _____ /__/__/__/__/ 4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? O Yes O No 5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident? O Yes ⇨ Most recent year tested: /__/__/__/__/ Test pressure (psig): /__/__/,/__/__/__/ O No 6. Has one or more Direct Assessment been conducted on the pipeline segment? O Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: /__/__/__/__/ O Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: /__/__/__/__/ O No *(This section continued on next page with Question 7.)*

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

G5 - Material Failure of Pipe or Weld

Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld."

*Only one **sub-cause** can be picked from shaded left-hand column

1. The sub-cause selected below is based on the following: *(select all that apply)*

☐ Field Examination ☐ Determined by Metallurgical Analysis ☐ Other Analysis_____

☐ Sub-cause is Tentative or Suspected; Still Under Investigation *(Supplemental Report required)*

☐ **Construction-, Installation-, or Fabrication-related** ☐ **Original Manufacturing-related (NOT girth weld or other welds formed in the field)**	2. List contributing factors: *(select all that apply)* ☐ Fatigue- or V bration-related: O Mechanically-induced prior to installation (such as during transport of pipe) O Mechanical V bration O Pressure-related O Thermal O Other _____ ☐ Mechanical Stress ☐ Other _____
☐ **Environmental Cracking-related**	3. Specify: O Stress Corrosion Cracking O Sulfide Stress Cracking O Hydrogen Stress Cracking O Other

Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.

*4. Additional factors: *(select all that apply)* O Dent O Gouge O Pipe Bend O Arc Burn O Crack O Lack of Fusion
O Lamination O Buckle O Wrinkle O Misalignment O Burnt Steel
O Other _____

*5. Has one or more internal inspection tool collected data at the point of the Accident? O Yes O No

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

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

*6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?
O Yes ⇨ Most recent year tested: /__/__/__/__/ Test pressure (psig): /__/__/,/__/__/__/
O No

*7. Has one or more Direct Assessment been conducted on the pipeline segment?
O Yes, and an investigative dig was conducted at the point of the Accident ⇨ Most recent year conducted: /__/__/__/__/
O Yes, but the point of the Accident was not identified as a dig site ⇨ Most recent year conducted: /__/__/__/__/
O No

*8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?
O Yes O No

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

O Radiography /__/__/__/__/
O Guided Wave Ultrasonic /__/__/__/__/
O Handheld Ultrasonic Tool /__/__/__/__/
O Wet Magnetic Particle Test /__/__/__/__/
O Dry Magnetic Particle Test /__/__/__/__/
O Other /__/__/__/__/

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

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

Complete the following if any Equipment Failure sub-cause is selected.

*6. Additional factors that contributed to the equipment failure: *(select all that apply)*

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

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

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

Complete the following if any Incorrect Operation sub-cause is selected.

*3. Was this Accident related to: *(select all that apply)*

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

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

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

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

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

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

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

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

PART H – NARRATIVE DESCRIPTION OF THE ACCIDENT *(Attach additional sheets as necessary)*

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

*Preparer's Name (type or print)

Preparer's Telephone Number

Preparer's Title (type or print)

Preparer's E-mail Address

Preparer's Facsimile Number

Authorized Signature

*Date

*Authorized Signature Telephone Number

*Authorized Signature's Name (type or print)

Authorized Signature's Title (type or print)

Au horized Signature's E-mail Address