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.





Northern Zone

Oil Spill Response Plan


KOCH
KOCH PIPELINE COMPANY LP
103
Developed by:
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KOCH

KOCH PIPELINE COMPANY LP

Northern Zone

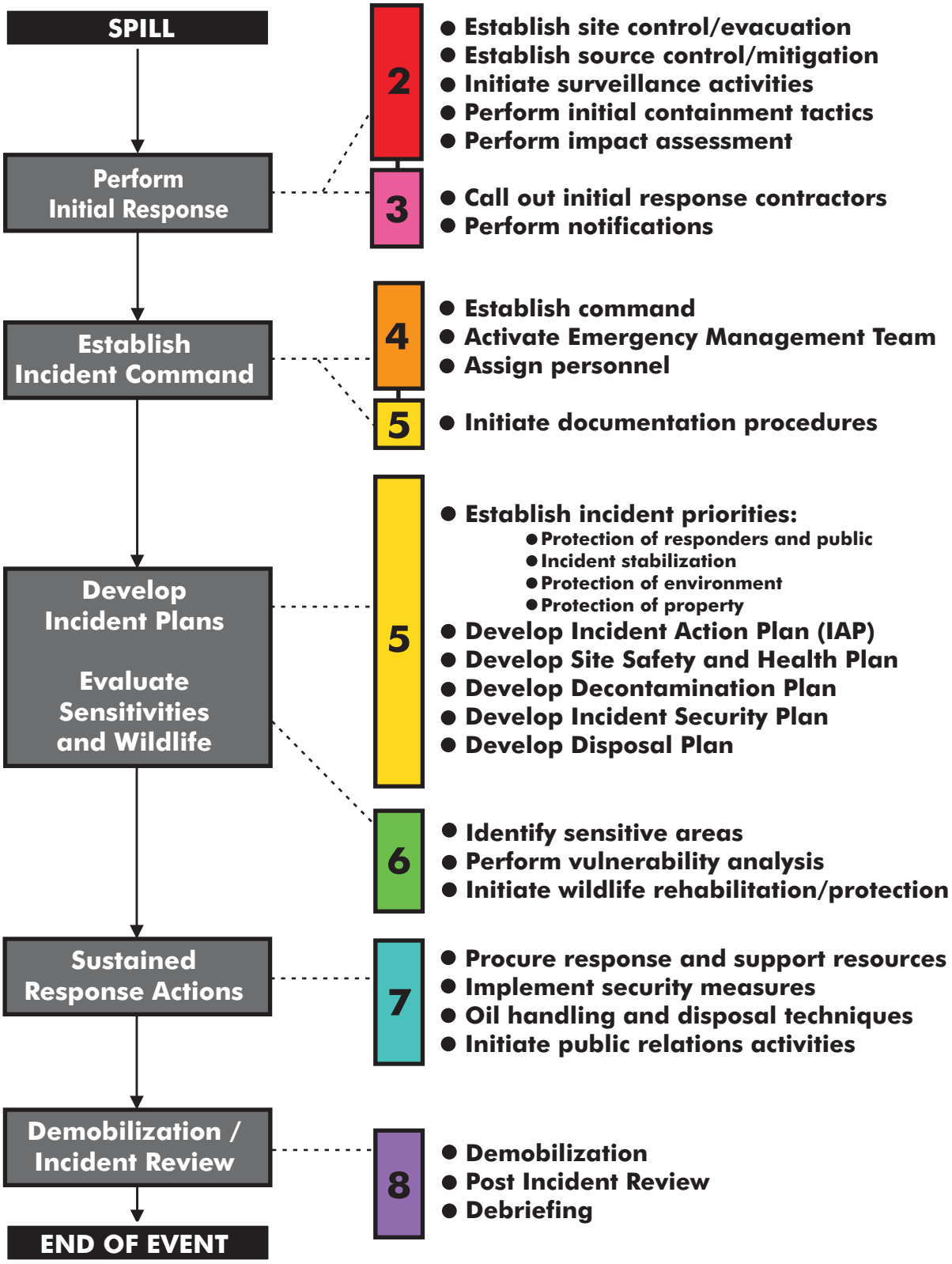
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Response Procedures Flow Chart



1. Introduction
2. Initial Response Actions
3. Notifications Phone Numbers
4. Response Team Organization
5. Incident Planning
6. Sensitive Areas Response Tactics
7. Sustained Response Actions
8. Demobilization Post Incident Review

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12/20/2011	Section 3 Figure 3.1-4; removed Kevin Robinson as a QI, significant change catagory.	
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8/21/2012	Section 3 Figure 3.1-5 and ERAP Figure 3-4	
9/10/2012	Section 3 Figure 3.1-5 and ERAP Figure 3-4	
10/19/2012	Section 3 Figure 3.1-4	
11/2/2012	Section 3 Figure 3.1-4	
11/5/2012	Section 3 Figure 3.1-4	
12/16/2012	Section 7 Figure 7.4-4; removed current information and added reference to KPL M260.010 Waste Management Program as required per Lynx Finding 86589ection 7 Figure 7.4-4	
12/20/2012	Section 1.4 Added 5-yr Plan submittal letter	
1/4/2013	Section 3 Figure 3.1-4 Addition of Wade Parrott as QI (Work-order PL266634)	
1/26/2013	Section 3.1	
1/29/2013	Section 3 Figure 3.1-4	

SECTION 1 Last revised: January 4, 2013

INTRODUCTION

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Figure 1-1 - Distribution List

Figure 1-2 - **Northern Zone** Information Summary

Figure 1-3 - **Northern Zone** Overview Map

Figure 1-4 - **Northern Zone** Pipeline Facilities Overview

1.1 Purpose / Scope of Plan

1.2 Plan Review and Update Procedures

1.3 Certification of Adequate Resources

1.4 Agency Submittal / Approval Letters

FIGURE 1-1 - DISTRIBUTION LIST

PLAN HOLDER	ADDRESS	NUMBER OF COPIES		DISTRIBUTION DATE
		PAPER	ELECTRONIC	
Southern Operating Group Main Office	8606 IH 37 Corpus Christi , TX 78409	0	1	
Response Plans Officer - Pipeline and Hazardous Material Safety - U.S. Department of Transportation	1200 New Jersey Ave., Room E22-210 Washington , DC 20590	0	2	

FIGURE 1-2 - NORTHERN ZONE INFORMATION SUMMARY

Owner/Operator:	Koch Pipeline Company, L.P. 4111 East 37th Street North Wichita , KS 67220
Owner Telephone:	(316) 828-8524
Zone Name:	Northern Zone
Zone Address:	8606 IH 37 Corpus Christi , TX 78409
Zone Telephone/Fax:	(361) 242-5539 / (361) 241-6096
Zone PHMSA #:	638

FIGURE 1-2 - NORTHERN ZONE INFORMATION SUMMARY, CONTINUED

Qualified Individuals: (Refer to APPENDIX A, FIGURE A.1-3 for QI Training Records)	**Facility**		
	Name and Contact Information	**Work Address**	**Home Address**
	Jerry Page Inspection Team Leader On-Scene Incident Commander, EOC Director Operations: Repair Group Supervisor,	197 Jeddo Road Rosanky, Texas 78953	(b) (6) [redacted]

	512-237-3371 (Office) (361) 543-6010 *(Mobile)		
	Tom Heilman - FHR Area Operations Manager & Fort Worth Terminal Manager QI, Incident Commander, Emergency Coordinator (817) 685-3472 (Office) (817) 688-4981 *(Mobile)	12550 Trinity Blvd Euless, TX 76040	(b) (6)
	Tim Larsen - FHR Terminal Manager Incident Commander; Emergency Coordinator (254) 756-5442 ext. 202 (Office) (254) 366-2441 *(Mobile)	2017 Kendall Lane Waco, TX 76705	(b) (6)
	Tom Heilman - FHR Area Operations Manager Operations (817) 685-3472 (Office) (817) 688-4981 *(Mobile)	12550 Trinity Blvd Euless, TX 76040	(b) (6)
	Barry Scheer Project Manager Command: EOC Director Command: On-Scene Incident Commander, Any ICS Positions (361) 242-5522 (Office) (b) (6) (361) 877-2581 *(Mobile)	8606 IH 37 Corpus Christi, TX 78409	(b) (6)
	Gabriel Lugo Emergency Response Manager Command: On-Scene Incident Commander EOC Manager All ICS Positions (361) 242-5544 (Office) (b) (6) (361) 877-0975 *(Mobile)	8606 IH 37 Corpus Christi, TX 78409	(b) (6)
	Tim Woodruff Operations Supervisor Command: On-Scene Incident Commander, EOC - Liaison (FHR Refinery), Operations: Section Chief, UCS 361-242-5511 (Office) (b) (6) 361-813-5124 *(Mobile) (b) (6)	8606 IH 37 Corpus Christi, Texas 78409	(b) (6)

	Bennie Rodriguez Operations Supervisor On-Scene Incident Commander, EOC Director, Operations: Section Chief (361) 526-2254 (Office) (361) 877-6040 *(Mobile)	108 Humble Rd Refugio , Texas 78377	(b) (6) [redacted]
	Jeffrey Gordon Operations Supervisor Incident Commander, Operations Section Chief, EOC Liaison (City Representation) (817) 685-3471 (Office) (b) (6) [redacted] (817) 688-0089 *(Mobile)	12550 Trinity Blvd Euless, Texas 76040	(b) (6) [redacted]
	Wade Parrott Assistant Division Manager On-Scene Incident Commander, EOC Director, Crisis Manager (361) 242-5593 (Office) (b) (6) [redacted] (612) 965-2438 *(Mobile)	8606 IH 37 Corpus Christi, Texas 78409	(b) (6) [redacted]

FIGURE 1-2 - NORTHERN ZONE INFORMATION SUMMARY, CONTINUED

Line Sections/ Products Handled: (Refer to Product Characteristic and Hazards, FIGURE C.6-1)

SECTION	MILEAGE	DIAMETER	PRODUCTS
NONREGULATED - KPL PIPELINES			
60204010 US Development to FHR	1.043	10	Ethanol * Note: Ethanol is not explicitly covered under 49 CFR 194 or 195; thus the US Development to FHR Pipeline Segment is considered Nonregulated under PHMSA.
System 600 / DFW Pipeline			
60005010 DFW	8.285	8	Refined Products
System 600 / Texas Pipeline I			
60001040 Austin to Waco	108.216	16	Refined Products

	60001030 San Antonio to Austin	95.804	16	Refined Products
	60001031 Mustang Lateral	.50	8	Refined Products
	System 600 / Texas Pipeline II			
	600002021 Bastrop Lateral	0.346	8	Refined Products
	60002020 Gonzales to Waco	147.445	18	Refined Products
	60002040 Waco Remote Trap to Ft. Worth	98.549	14	Refined Products
	60002030 Waco to Waco Remote Trap	9.087	16	Refined Products
	System 602 / Southwest Pipelines			
	60201010 San Antonio to Star,	3.294	8	Refined Products
	60203010 Southlake Pipeline	11.112	12	Refined Products
	System 606 / Caldwell Pipelines			
	60602010 Caldwell	4.505	6	Crude
	60601031 Gerdes Loop	9.44	6	I/A Crude
	60601030 Gerdes to Three-way	32.486	6	Crude
	60601010 Hearne to Shaft	21.923	6	Crude
	60601050 Rosanky to Nixon	56.140	8	Crude
	60601020 Shaft to Gerdes	23.657	6	Crude
	60601040 Three-way to Rosanky	12.441	8	Crude
	60603010 Westpoint to Three-way	2.906	6	I.A Crude

FIGURE 1-2 - NORTHERN ZONE INFORMATION SUMMARY, CONTINUED

Description of Zone:	The pipelines carry petroleum products (including) in the areas shown in **FIGURE 1-3**
Response Zone Consists of the Following Counties:	Bastrop, Bell, Bexar, Burleson, Caldwell, Falls, Fayette, Hill, Gonzales, Guadalupe, Johnson, Lee, Mc Lennan, Milam, Robertson, Tarrant, Travis, Williamson
Alignment Maps (Piping, Plan Profiles):	Maintained at: Maintained at: http://gatir/gatirweb/GatirRes.aspx?sw=1024&sH=768

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

Statement of Significant and Substantial Harm:	The response zones in this system contain pipelines that are either greater than 6 5/8 inches and/or longer than 10 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.
Spill Detection and Mitigation Procedures:	Refer to **SECTION 2.1.1** and **APPENDIX C.1**.
Date Prepared:	October 30, 2006

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 1-3 - OVERVIEW MAP

Click here to view the file

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW

Facility:	Caldwell	**Address:**	635 FM Road 976 Caldwell, Texas Caldwell 77836
Phone:	979-535-4478	**Fax:**	979-535-4478
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA Response Plan # 638, SPCC Plan		
Distance To Navigable Water:	(b) (7)(F) [redacted]		
Description:			
This station's primary purpose is a crude oil truck receipt station. The station also serves as an origin point into the the South Texas Crude Caldwell Pipeline system. This station is equipped with third party-owned containers used to store truck-delivered crude oil from the third party contractor tanker trucks.			
Driving Directions:			

From Caldwell, take Highway 36 south 7.5 miles. Take FM 976 West 1/2 mike. The Station is located behind the Plains trucking / pipeline facility.			
Tank #:	**Product**	**Capcity (bbls)**	**Secondary Containment Volume Type (bbls)**
27037	Crude Oil	(b) (7)(F) [redacted]	
27017	-		

Caldwell



Caldwell Emergency Evacuation & Fire Equipment
Caldwell Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Southlake Station	**Address:**	2350 Hwy 26 Southlake, Texas Tarrant 76092
Phone:	254-587-2050	**Fax:**	N/A
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA Plan #638		
Distance To Navigable	(b) (7)(F) [redacted]		

Water:	(b) (7)(F)
Description:	
Petroleum products flow into the station from a 12" line from Euless Terminal and are distributed outbound through a manifold to several third party customer?s lines.	
Driving Directions:	
From Fort Worth east on NE Loop I-820. Exit 22a and go approximately 8.5 miles northeast on Texas State Highway 26. The station is on the northewest side of HWY 26.	

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)
Thermal Surge TK	Gasoline-Diesel-Jet Swing	(b) (7)(F)	

Southlake Station, CONTINUED



Southlake Emergency Evacuation& Fire Eqipment
Southlake Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Euless Terminal Pump Station	**Address:**	12550 Trinity Blvd Euless, Texas Tarrant 76040
Phone:	817-685-3425	**Fax:**	817-685-3430

(b) (7)(F) [redacted]	
Agency Assigned Plan Number:	PHMSA Plan #638
Distance To Navigable Water:	(b) (7)(F) [redacted]

Description:

This site is a refined products pipeline receipt facility with aboveground breakout tanks owned/operated by FHRCC. Delivery pipelines enter the station from the Waco traps upstream. Product is pumped into the aboveground breakout tanks and delivered out through multiple third party customers.

Driving Directions:

From Fort Worth, take I-30 east to 360. Head north on 360 to the Trinity Boulevard exit. Head west on Trinity Boulevard for approx. 2 miles and the terminal is on the left hand side of the road.

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)

Euless Terminal Pump Station, CONTINUED



Euless Terminal Pump Station Evacuation & Fire Equipment Plan
Euless Terminal Pump Station Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Waco Terminal Pump Station	**Address:**	2017 Kendall Lance Waco, Texas MCLennen 76705
Phone:	254-756-5442	**Fax:**	254-756-6062
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA #638		
Distance To Navigable Water:	(b) (7)(F)		

Description:

This site is a refined products pipeline pump station. Delivery pipelines enter the station from the Gonzales traps (TPL 2) and Austin (TPL 1) upstream. Product is pumped through the station?s three mainline pumps (TPL 2) and is delivered through Waco Remote via 16" pipeline.

Driving Directions:

I-35 to MLK Blvd. Exit. Head east one block to Orchard Lane, turn north on Orchard to Kendall. Terminal is 1/2 miles east on Kendall.

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)

Waco Terminal Pump Station, CONTINUED



Waco Terminal Pump Station Emergency Evacuation & Fire Equipment

Waco Terminal Pump Station Drainage Map

Northern Zone 1 - 16

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Gerdes	**Address:**	1053 CR 123 Giddings, Texas Lee 78942
Phone:	979-884-0181	**Fax:**	979-884-4046
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	RSPA Response Plan # 638		
Distance To Navigable Water:	(b) (7)(F) [redacted]		

Description:

This oil storage site is a pump station with crude oil truck unloading operations and two storage containers. Crude oil is delivered by pipeline into the bulk storage containers. This station is equipped with third party-owned containers used to store truck-delivered crude oil from the third party contractor tanker trucks.

Driving Directions:

Follow FM 141 north from Giddings 12 miles to CR 123. Take CR 123 east. The station is 60 feet east on the north side of CR 123.

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)
27083	Crude Oil	(b) (7)(F) [redacted]	
27012	-		

Northern Zone 1 - 17

Gerdes, CONTINUED



Gerdes Pump Station Evacuation & Fire Equipment Plan
Gerdes Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Austin Terminal Pump Station	**Address:**	9011 Johnny Morris Road Austin, Texas Travis 78721
Phone:	512-928-9226	**Fax:**	512-928-9229
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA Plan #638		
Distance To Navigable Water:	0.6 Miles		

Description:
This site is a refined products pipeline pump station. Delivery pipelines enter the station from the San Antonio traps upstream. Product is currently bypassing the station pumps (outlined in red)and is delivered through the downstream traps at Waco.
Driving Directions:
From Interstate Highway 35, proceed east on Highway 290 for approx. 5 miles to Johnny Morris Road. Turn right on Johnny Morris Road and the terminal is 1/2 mile down on the left.

Tank #:	**Product**	**Capcity (bbls)**	**Secondary Containment Volume Type (bbls)**

Northern Zone 1 - 19

Austin Terminal Pump Station, CONTINUED



Austin Emergency Evacuation & Fire Equipment
Austin Drainage Map

Northern Zone 1 - 20

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Mustang Ridge Terminal Pump Station	**Address:**	1165 East Lone Star Drive Buda, Texas Hays 78610
Phone:	512-398-1954	**Fax:**	512-398-3604
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA		
Distance To Navigable Water:			

Description:

The Terminal, which is located on 35 acres of land, is a terminal for transferring gasoline, transmix, and diesel fuel from a pipeline to tanker trucks for distribution. Fuel additives and ethanol are also stored and handled at the Terminal. The aboveground storage tanks are connected by aboveground piping to the truck loading rack. The Terminal also includes a fire pump diesel tank for the fire suppression system. Additionally, there is an operations center building, auxiliary equipment, and maintenance buildings

Driving Directions:

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)

Mustang Ridge Terminal Pump Station, CONTINUED



Mustang Ridge Terminal Pump Station Emergency Evacuation & Fire Equipment
Mustang Ridge Terminal Pump Station Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Rosanky Pump Station	**Address:**	197 Jeddo Road Rosanky, Texas Bastrop 78953
Phone:	512-237-3649	**Fax:**	512-237-3649
(b) (7)(F)			
Agency Assigned Plan Number:	PHMSA Response Plan # 638,		
Distance To Navigable Water:	(b) (7)(F)		

Description:
This site is a pipeline pump station with one aboveground breakout tank. Delivery pipelines enter the station from the Three-way traps upstream. Product is pumped through the station?s two boosters and two mainline pumps and is delivered through Nixon Jct. via 8" pipeline
Driving Directions:
Take FM Road 535, one half (1/2) mile east of Rosanky to Jeddo Road. Take Jeddo Road south and the station is the last station on the east side of the road.

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)
27015	Crude Oil	(b) (7)(F)	

Rosanky Pump Station, CONTINUED



Rosanky Emergency Evacuation & Fire Equipment
Rosanky Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	West Point Pump Station	**Address:**	1549 FM 154 West Point, Texas Fayette 78963
Phone:	N/A	**Fax:**	N/A
(b) (7)(F)			

Agency Assigned Plan Number:	PHMSA Plan #638
Distance To Navigable Water:	(b) (7)(F) [redacted]

Description:

This inactive station consists of two permanently closed (b) (7) (F) tanks Station piping has been purged with a mix of corrosion inhibitor and water. Station piping is disconnected from the pipeline.

Driving Directions:

From Highway 71, take FM 154 1.5 miles south. The station is on the west side of the road between the road and the railroad tracks .

Tank #:	Product	Capcity (bbls)	Secondary Containment Volume Type (bbls)

West Point Pump Station, CONTINUED



West Point Station Evacuation & Fire Protection Plan
West Point Drainage 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. The Facility is owned and operated by Koch Pipeline Company, L.P. , herein referred to as "Company."

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), Region 6 Integrated Contingency Plan (ICP). Specifically, this Plan is intended to satisfy:

- Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation requirements for an OPA 90 Plan (49 CFR 194)
- Occupational Safety and Health Administration (OSHA) requirements for emergency response plans (EAP and ERP) (29 CFR 1910)
- 16 TAC 8.301 (c) Facility Response Plans
- 40 CFR Part 265, Subpart C - Preparedness and Prevention; plus Subpart D - Contingency Plan and Emergency Procedures

Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes are accomplished by distribution of this plan to the respective agency.

This document includes procedures and forms that are applicable to different types and severities of emergency events. It is intended that the appropriate procedures and forms be used in each event, as detailed herein, but it is not specifically required that every form and/or procedure be used for every emergency event. It is also acceptable to use comparable forms versus those shown in this document, unless such substitution is specifically prohibited in this document or other regulatory documents.

1.2 PLAN REVIEW AND UPDATE PROCEDURES

In accordance with the regulations cited in **SECTION 1.1**, this plan will be reviewed and modified to address new or different operating conditions or information included in the Plan. In the event that the Company experiences a Worst Case Discharge, the effectiveness of the plan will be evaluated and updated as necessary.

Upon review of the response plan for each five-year period, revisions will be submitted to PHMSA provided that changes to the current plan are needed, or a letter stating that the plan is still current will be submitted to PHMSA.

If new information or different operating conditions would substantially affect implementation of the Plan, the Company will modify the Plan to address such changes and, within 30 days of making such changes, submit the changes to PHMSA.

Examples of changes in operating conditions that would cause a significant change to the Plan include:

CONDITIONS REQUIRING REVISIONS AND SUBMISSIONS	PHMSA	RCRA
Relocation or replacement of the transportation system in a way that substantially affects the information included in the Plan, such as a change to the Worst Case Discharge volume.	x	
A change in the type of oil handled, stored, or transferred that materially alters the required response resources.	x	
A change in key personnel (Qualified Individuals).	x	
Material change in capabilities of the Oil Spill Removal Organization(s) (OSROs) that provide equipment and personnel.	x	
Any other changes that materially affect the implementation of the Plan.	x	
A change in the NCP or ACP that has significant impact on the equipment appropriate for response activities.	x	
Applicable regulations are revised	x	x
The plan fails in an emergency;		x
The facility changes in its design, construction, operation, maintenance, or circumstances in a way that materially increases the potential fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;		
The list of emergency coordinates changes; or		x
The list of emergency equipment changes.		x

All requests for changes must be made through the Operations Manager and will be submitted to PHMSA by the DOT Compliance Coordinator or Designee.

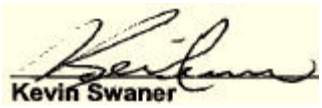
The most current version of the plan is always the electronic copy. Revisions to the site-specific information are made through the password protected maintenance interface. The date at the beginning of each Section indicates the last date that Section was revised. Any revisions made after that date need to be reprinted and inserted in to the paper copy of the plan.

1.3 CERTIFICATION OF ADEQUATE RESOURCES

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

Koch Pipeline Company, L.P.

The Koch Pipeline Company, L.P., hereby certify to the Pipeline and Hazardous Materials Safety Administration of the Department of Transportation that they have 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 a substantial threat of such a discharge.



Kevin Swaner
SOG Operations Manager

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view PHMSA New Plan Submittal.pdf

Click here to view SOG - 5-yr PHMSA Submittalpdf.pdf

SECTION 2 Last revised: February 2006

INITIAL RESPONSE ACTIONS

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2.1 Spill / Release Response

2.1.1 Incident Detection

2.1.2 Emergency Classifications

2.1.3 Assessment

2.1.4 Spill / Release Emergency Response

Figure 2.1-1 - Spill / Release Response Action Checklist

2.1.5 Spill Mitigation Procedures

Figure 2.1-2 - Spill Mitigation Procedures

2.1.6 Spill Surveillance Guidelines

Figure 2.1-3 - Spill Surveillance Checklist

2.1.7 Spill Volume Estimating

Figure 2.1-4 - Spill Estimation Factors on Water

Figure 2.1-5 - Leak Size Determination Table

2.1.8 Estimating Spill Trajectories

2.1.9 Containment

2.2 Evacuation

2.3 Lightning

2.4 Earthquakes

2.5 Tornado

2.6 Hurricane

2.7 Flood

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2.8 Medical

2.9 Sabotage

2.10 Bomb Threat

2.11 Fire and/or Explosion

2.12 Release with a Flammable Vapor Cloud

2.1 SPILL / RELEASE RESPONSE

"General Order of Response" for a Spill or Emergency Event can be as follows:

- Discovery (Detection), Classification and Assessment: This is where the discovery and classification occur and where the initial assessment of severity of the event occurs.
- Security: Ensure security of personnel and the site during the entire response. Allows the opportunity to engage different security needs depending on the nature of the incident.
- Response: Initial Notification, Response, and Mitigation of the event occur at this time. Longer-term, more complex responses which will likely require multiple operational periods will be considered a Sustained Response.
- Closure: Process to conclude an event that has been resolved to the satisfaction of the ICS/UCS (Responsible Party, Federal, State, and Local Agencies).
- Termination and follow-up: The response is terminated, but periodic follow-up or additional remediation activities may be required by the regulating Agencies.

This plan contains check-off sheets and procedures, based on the general order of response, intended to minimize the possibility of omitting critical actions when dealing with emergency events.

2.1.1 Incident Detection

Detection of an emergency event is the first step in an Emergency Incident or Spill / Release response. There are several methods by which an emergency situation may be detected, including the following:

- Detection during an aerial patrol (fly over).
- (b) (7)(F)
- Reported by private citizens or by public officials.
- Reported by company personnel.
- Reported by contract personnel on site.

2.1.2 Emergency Classifications

There are two classes of emergency events, "reported" and "confirmed".

A "reported" emergency is either an event reported by someone other than a company employee and which cannot be immediately confirmed or a pressure or flow rate change that is not confirmed by a second source.

A "confirmed" emergency is an event reported by a company employee or reported by someone other than a company employee and confirmed by a second source. Any event that threatens lives or public safety if immediate action is delayed, is to be considered a confirmed emergency.

Immediately upon receiving notification of an emergency event/incident, the company employee shall make appropriate internal notifications (**FIGURE 3.1-4**) ensuring the Qualified Individual (QI) and others such as the supervisor and Control Center are advised.

Possible Sources which can be utilized to confirm an emergency event include checking with the supervisory control monitors for signs of problems or confirming information through direct observations by dispatching the nearest available employee to the scene of the reported event.

2.1.3 Assessment

Once an emergency event or release is detected, the need for assessment of the situation is paramount for rapid, reliable, and effective response. In every case, we must collect accurate initial information (**FIGURE 3.1-2**). The information acquired is passed along to responsible company officials to ensure proper actions are taken.

As the situation dictates, additional assessment may be necessary to perform specific activities. For example, the repair team leader may further evaluate the incident for the safest and most effective means to control the release and to repair the source. The Qualified Individual or Incident Commander may perform their own assessment of the situation before taking control of the incident to get the most up-to-date information of the situation for further planning and actions.

During significant events, the incident assessment may be done in concert with Federal and State Agencies. It is the responsibilities of the FOCS to officially classify the size and type of the discharge and normally work within the Unified Command System (UCS) to determine the course of actions to be followed.

INCIDENT ASSESSMENT	
Person Assessing the Incident	
Approach any suspected emergency incident or suspected release cautiously.	☐
Take appropriate personal protective measures (Do not enter any areas without proper PPE).	☐
Eliminate possible sources of ignition in the vicinity of the spill (if applicable, use E-Stops).	☐
Initiate a general site assessment giving emphasis to the following:	
• Immediate danger to the general public	☐
• Immediate danger to the environment (e.g. waterways, wildlife)	☐
• Identify significant impact areas (e.g. drinking water intakes, commercial businesses)	☐
• Identify topographic features that could impact the migration of the spill	☐
• Identify any municipalities or public areas such as churches, parks, etc.	☐
• Identify what other requirements will be necessary when KPL is inside other facilities.	☐

Immediately notify Qualified Individual, Supervisory Personnel and, if necessary, Control Center with the results of your assessment.	☐
Make internal notifications as necessary (**FIGURE 3.1-4**).	☐
Initiate the Initial Incident Response Procedures.	☐

2.1.4 Spill / Release Emergency Response

This section provides a general guidance checklist to identify and mitigate damage due to a leak. This checklist is intended to provide a general approach to cover the emergency situation and does not constitute what actions need to be taken first.

FIGURE 2.1-1 - SPILL / RELEASE RESPONSE ACTION CHECKLIST

INITIAL RESPONSE ACTION	
First Responder (First Person to Respond to Spill)	
Assume role of Incident Commander, will not relinquish this position until formally passed on.	☐
Take appropriate personal protective measures (EH&S Work Permit).	☐
Eliminate possible sources of ignition in the vicinity of the spill (use E-Stops if applicable).	☐
Call 911 if appropriate.	☐
Immediately notify Qualified Individual (QI), Supervisory Personnel, and Control Center, if necessary, of the incident.	☐
Make internal notification, call for resources as needed (**FIGURE 3.1-4**).	☐
If necessary, evacuate or remove nonessential personnel and any general public within the response area.	☐
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.	☐
Call out spill response contractors (**FIGURE 3.1-6**).	☐
Incident Commander	
Confirm or conduct more extensive assessment of health and safety hazards (EH&S work permit). For multiple responders, geographic areas, or more complex responses, Site Safety plan may be needed.	☐
Provide or Confirm Security of area (as necessary). Have nonessential personnel or any general public evacuated. Consider local authorities (police and fire departments) to accomplish the site control recommended.	☐
Call out or confirm Oil Spill Response Contractors (OSRO) or Company-owned spill response resources (**FIGURE 3.1-6**).	☐
As necessary, establish ICS/UCS for Response. It may be necessary to call out members of the IMT. Ensure response objectives are established for emergency and that response activities are being activated.	☐
Make or ensure appropriate notifications have been made; may need to recruit	

personnel from IMT such as Government Liaison and assign within the ICS. • National Response Center (800) 424-8802 • External Regulatory notifications (**FIGURE 3.1-5**) • Make appropriate internal notifications (**FIGURE 3.1-4)**	☐
If safe to do so, direct responders to eliminate potential ignition sources in the vicinity of the spill including motors, electrical pumps, electrical power, etc. Keep drivers away from truck rack if spill occurs there.	☐
If safe to do so, direct responders to eliminate, control, and "isolate" 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.	☐

FIGURE 2.1-1 - SPILL / RELEASE RESPONSE ACTION CHECKLIST, CONTINUED

INITIAL RESPONSE ACTION	
Incident Commander, Continued	
Consider applying foam over the product, using water spray to reduce vapors, grounding 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.	☐
If safe to do so, deploy containment/recovery equipment (OSRO or Company-owned) based on release impact.	☐
Maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.	☐
Once deployment of response equipment has been commenced, initiate recovery of product.	☐
Notify Local Emergency Responders (as appropriate). Obtain the information necessary to complete the Oil Spill Report Form (**FIGURE 3.1-3**).	☐
Ensure drug/alcohol testing completed per DOT 199 if applicable (alcohol within 2 hours or max of 8 hours, drug within 32 hours). See DNet for a list of approved Lab Corp Collections Sites.	☐
Evaluate personnel requirements for the initial cleanup. Consider what the operational periods will be necessary and begin planning for the shift/crew replacement.	☐
Initiate spill tracking and surveillance operations. Determine extent of release. Estimate volume of spill utilizing information in **SECTION 2.1.3** or appropriate means.	☐

SITE-SPECIFIC ACTIONS

DOCUMENT ACTIONS TAKEN	
Once a response has been activated, initiate and direct participants to document the initial assessment and response activities.	☐
Upon establishing an ICS/UCS, ensure there is a unit or people (suggest Situation Unit or Scribe) responsible to require documentation from people engaged in the spill response.	☐
Through the ICS/UCS, ensure that planned and executed response activities are being captured through a general Incident Action Plan (IAP).	☐

FIGURE 2.1-1 - SPILL / RELEASE RESPONSE ACTION CHECKLIST, CONTINUED

PREPARING FOR SUSTAINED RESPONSE ACTION	
Incident Commander, Continued	
Activate Incident Management Team (IMT) (as necessary). Set up a Command Center and begin to utilize the ICS/UCS structure. Establish the site Safe Areas and provide the site with communications in order to coordinate the response effort.	☐
Evaluate and establish a communication plan as necessary. Generally communications will consist of mobile telephones. Other methods may be acquired based on the needs as established by the ICS/ICS.	☐
May consider multiple geographic or cleanup areas depending on size and areas of impact. Ensure equipment is evaluated to be sufficient for different areas if zoned off.	☐
Evaluate safety air monitoring devices and PPE supplies for response.	☐
Planning unit may be established to evaluate the proper containment and response equipment for changing conditions. Maintain vigilance on changing conditions and how will this equipment protect environmentally sensitive areas within the impact area or bordering the impact areas.	☐
Evaluate recovery methods on site; look for efficiency and minimal intrusion into the environment and change accordingly. Consider vacuum trucks skimmers and absorbent material.	☐
Initiate spill tracking and surveillance operations. Determine extent of release. Estimate volume of spill utilizing information in **SECTION 2.1.3** or appropriate means.	☐
Address storage of recovered materials (Disposal Plan).	☐
Establish “Cleanup Assessment Teams” which can determine cleanup progress.	☐
Establish “How clean is clean” parameters which the Cleanup Assessment Teams will utilize to approve the removal of cleanup equipment.	☐
Document response actions taken, including notifications, agency/media meetings, equipment and personnel mobilization and deployment, and area impacted. (Refer to **SECTION 5** for documentation)	☐
SECONDARY RESPONSE ACTIONS (Refer to IMT job descriptions in **SECTION 4.6**).	

FACILITY SPECIFIC RESPONSE CONSIDERATIONS
(Refer to **SECTION 6** for maps, tactical plans, and sensitivity information.

2.1.5 Spill Mitigation Procedures

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 2.1-2**. Discharge volume calculations are provided in **APPENDIX C.4**.

FIGURE 2.1-2 - 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 valves (if appropriate). 3. Drain product into containment areas (if possible). 4. Eliminate sources of vapor cloud ignition.*
Tank 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. Eliminate source of vapor cloud ignition.* 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. Shut down pumps. Close the closest valves on each side of the rupture (if appropriate). 3. Drain the line back into contained areas (if possible). Alert nearby personnel of potential safety hazards. 4. Eliminate source of vapor cloud ignition.* 5. If piping is leaking and under pressure, relieve pressure by draining into a containment area or to a tank (if possible). Consider additional measures for repair.
Piping Rupture/Leak (Highly Volatile Liquids / Vapor)	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Shut down pumps. Close the closest valves on each side of the rupture (if appropriate). 3. Contact local Emergency Services (Fire, Police, etc) 4. Analyze vapor cloud migration utilizing wind direction; Establish perimeter and monitoring

	5. Eliminate sources of potential ignition* 6. Alert nearby personnel of potential safety hazards, consider evacuation or shelter in place as necessary. 7. If piping is leaking and under pressure, relieve pressure; if possible to existing pressure release method. Consider additional measures for repair.
Failure of Pipeline at Railway Facilities	1. Personnel safety is the first priority. Evacuate nonessential personnel or personnel at high risk. 2. Terminate transfer operations and close valves (if appropriate). 3. Eliminate source of vapor cloud ignition.* 4. Respond to event in accordance with procedures listed in this Plan. 5. Contact the Railway Authorities to inform of the event, engage into Incident Command and Response as necessary.
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 (if appropriate). 3. Attempt to extinguish fire if it is in incipient (early) stage and **if it can be done safely**. 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). Also refer to fire/explosion response procedures in **SECTION 2.11**.
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 valves on both sides of the leak/rupture. 4. Eliminate source of vapor cloud ignition.* 5. Drain fluids back into containment areas (if possible).

* Examples of ignition sources include: roads, houses, farm buildings, railroad tracks, electrical equipment, industrial or manufacturing facilities, office buildings or parking lots, irrigation pumps or water wells, any other source that may contain an open flame, electrical equipment or other ignition source.

2.1.6 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 downgradient to determine the spill's 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.
- Sorbent pads may be used to detect oil on water.

- 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 may be accomplished through various methods: walking, driving, boats, helicopters, or small planes. The use of helicopters may be considered the preferred method 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.
- Observations should be documented. Consider using photographs, video, maps, and pre-determined ICS forms.
- 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.
- Consider the use of boats in the event of reduced visibility, such as dense fog or cloud cower; however, this method may not be safe if the spill involves a highly flammable product.
- Consider visual assessment during spill response operations to gauge the effectiveness of response operations, to assist in placing skimmers, and to assess the spill's size, movement, and impact.

A Spill Surveillance Checklist is provided in **FIGURE 2.1-3**.

FIGURE 2.1-3 - 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.

General Information	
Date:	Tidal or river stage (flood, ebb, slack, low water, dry):
Time:	On-scene weather (wind, sea state, visibility):
Incident name:	Method of observation (helicopter, fixed-wing aircraft, boat, shore):
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	

Spill location(s):	If on water, describe color and appearance (i.e. rainbow, dull or silver sheen, black or brown in color or mousse):
Spill dimensions:	Percent coverage:
Orientation of spill(s):	Is oil recoverable (Y/N)?:
Distribution of oil (i.e. windrows, streamers, pancakes or patches):	

Considerations
• During surveillance, 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 the work is done 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):

FIGURE 2.1-3 - SPILL SURVEILLANCE CHECKLIST, CONTINUED

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.

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):
Spill Sketch

2.1.7 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

One tool available to assist in making this calculation is PRC 1604.209 Release Information

Estimating Procedures. There are other tools which can be used, some of which are discussed below:

- **Spill Estimating Spreadsheet**
    - Visual assessment of the surface area and thickness (**FIGURE 2.1-4**); 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 2.1-4 - SPILL ESTIMATION FACTORS ON WATER

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

NOAA, 09/2000

FIGURE 2.1-5 - LEAK SIZE DETERMINATION TABLE

PIPE SIZE	WALL THICKNESS	BBLS/FOOT	BBLS/MILE
6"	.188	.0379342	200.293
8"	.188	.0661017	349.017
10"	.188	.1045450	551.998
12"	.219	.1472539	777.501
12"	.250	.1457746	769.690
16"	.250	.2333852	1232.274
18"	.281	.2952087	1558.702
20"	.281	.3670238	1937.885
24"	.281	.5336190	2817.508

2.1.8 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. 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
- High Consequence Area (HCA) over land spread calculations developed for the Integrity Management Plan

2.1.9 Containment

Containment actions should take into consideration inclement weather or unsafe conditions such as high winds, fast currents, or unstable terrain.

Containment Safety Considerations

More vapors are formed by the spilled liquid during hot weather. As the liquid spreads over a greater area, the vapors form along the leading edge of the liquid and are being exposed to more possible ignition sources. For this reason early containment is important.

- Eliminate ignition sources
- Avoid contact with the spilled product as much as possible
- Use respiratory protection (if applicable)
- Ensure that the area remains secure to applicable traffic (pedestrian, motor vehicles, air traffic)

Containment Goals

The following containment goals should give the responding personnel some guidance enabling them to prioritize the containment efforts.

1. To prevent liquid or vapors from reaching possible ignition sources:

- Roads
- Houses
- Farm buildings
- Railroad tracks
- Electrical equipment
- Industrial or manufacturing facilities
- Office buildings or parking lots
- Irrigation pumps or water wells
- Any other structure or facility that may contain an open flame, spark, or electrical equipment

Containment Goals, Continued

2. To prevent spilled liquid from reaching any environmentally sensitive area:

- Lakes
- Streams
- Rivers
- Wildlife areas
- Marsh environment
- Other environmentally sensitive area (**SECTION 6**)

3. To prevent spilled liquid or vapors from reaching areas containing livestock:

- Horses (stalls)
- Cattle (pens)
- Pigs
- Fowl

Containment Methods / 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

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

- Ability to collect and recover product

The following methods may be used in containment of a release. It may be necessary to use different methods during one release.

- Earthen dikes or dams
- Spill containment booms
- Absorbents such as hay, straw, dry dirt or sand, and commercial products (peat moss)
- Absorbents such as sorbent pads, socks, booms
- Collection and skimming: diverting and collection in low areas or diversionary structures and removing with skimming equipment such as vacuum trucks or pumps

Note: Understanding that each release is different and circumstances may be unique, some operational areas may have additional details to containment and response methods listed in **SECTION 6** Sensitive Areas / Response Tactics

2.2 EVACUATION

EVACUATION CHECKLIST	
TASK	
Request assistance from off-site agencies; convey Command Post's location	☐
Assemble personnel at predetermined safe location: upwind/up gradient of release (assembly area)	☐
Account for Company and contractor personnel	☐
Assess injuries/fatalities (number/type/location)	☐
Determine probable location of missing personnel	☐
Secure site, establish re-entry point and check-in/check-out procedures	☐
Develop list of known hazards (confined spaces, electrical hazards, physical hazards, vapors, oxygen deficiency, fire/explosion, etc.)	☐
Monitor situation (weather, vapors, product migration) for significant changes	☐
Assist in developing a Rescue Plan, if necessary	☐
Site Specific Actions:	
A. The alarm system for the Southern Operation Pump Stations consists of an audible alarm ?air horn? using three long blasts to notify employees of the need to evacuate the facility. Additionally, the station supervisor or other designated company personnel may utilize verbal communication or notify employees via company pagers, radios and/or cell phones should it become necessary to evacuate the facility and have not otherwise been notified. B. When an alarm sounds, personnel shall proceed to the designated muster points as seen in the Facility "Emergency Evacuation and Fire Equipment" Plot Plan. Prior to responding or initiating any actions, the employees must be accounted for and have made contact with the Pump Station?s Qualified Individual (QI) or designee for instructions. The station supervisor or company personnel identifying shall also follow KPL Notification System (Incident Communicator) procedures as described in	☐

Section 3.1.	

2.3 LIGHTNING

LIGHTNING CHECKLIST	
TASK	
Maintain equipment grounding systems to dissipate the effects of a lightning strike.	☐
Provide lightning arrestors on electrical equipment throughout the system.	☐
During thunderstorms, personnel are to avoid the following: • Storage Tanks • Pumping Equipment • Being in contact with or in close proximity to above ground piping or any non-insulated device attached to the pipeline • Trees and metal buildings • Open fields • Holding metallic objects	☐
During thunderstorms, personnel should be aware of the potential for lightning and remain alert for strikes that may affect the pipeline operation.	☐

Possibly the most frequent effect of lightning is the interruption of electric power or communications to one or more locations on the pipeline. These events are covered in "abnormal" operation procedures described in the Operations Manual.

The most devastating effect of lightning is the striking of a tank and resulting fire. The response to a fire or explosion event is outlined in the **SECTION 2.11**.

2.4 EARTHQUAKES

Earthquakes generally strike without warning, making them very difficult to prepare for. While the initial quake may be unpredictable, there is a certain amount of post-quake activity accompanying most quakes. These procedures should be followed in the aftermath of an earthquake:

The Pipeline Control center has registered with the USGS to receive earthquake notifications within the operational areas of the continental USA. Based on the magnitude and distance of the earthquake the following procedures should be followed in the aftermath:

EARTHQUAKES CHECKLIST	
Stations and Terminal	
If an earthquake is within a 50 mile radius of the asset, the following is completed based on the magnitude.	
2.0 to 2.9 - Pipeline Control Center will notify the station or terminal of the earthquake. Inspect the asset at the next scheduled station walkthrough.	☐

3.0 to 3.9 ? Pipeline Control Center will issue a "Priority 3" notification for a visual inspection of the station.	☐
4.0 to 4.9 ? Pipeline Control Center will issue a "Priority 2" notification for a visual Inspection of the station.	☐
If an earthquake is within a 100 mile radius of the asset, the following is completed based on the magnitude.	
5.0 to 5.9 ? Pipeline Control Center will issue a "Priority 2" notification for a visual Inspection of the station.	☐
> 6.0 ? Pipeline Control Center will issue a "Priority 0" notification to shut down the station until a visual inspection is completed.	☐
Underground Pipelines	
If an earthquake is within a 100-mile radius of the asset, the following is completed based on the magnitude.	
5.0 to 5.9 ? Pipeline Control Center will notify the PCC communicator scenario of the earthquake; plus reduce to 50% MOP and monitor for 12 hours. Operation Management will evaluate what other actions may be necessary on a case-by-case basis.	☐
> 6.0 ? Pipeline Control Center will notify the PCC communicator scenario of the earthquake and shut the pipeline until a visual inspection is completed; plus operate at 50% MOP for 12 hours once the pipeline is brought back on.	☐

Priority 3 = means within 24-hours of receiving notice of the earthquake occurrence and coupled with the control center is not registering any alarms.
Priority 2 = means as soon as feasible, safe, and practical; to coincide with the earliest available daylight to give the best viewing possible and coupled with the control center is not registering any alarms.
Priority 1 = registers a high sense of urgency; contact pipeline operator on call-out whatever the time of day or night it may be.
Priority 0 = registers the highest sense of urgency, Shut station down and contact pipeline operator on call-out whatever the time of day or night it may be.

2.5 TORNADO

TORNADO CHECKLIST	
TASK	
Monitor news media reports (**FIGURE 3.1-7**) • Tornado watch means conditions are favorable for tornadoes • Tornado warning means a tornado has been sighted	☐
When a tornado warning is issued, sound the local alarm	☐
Have location personnel report to the designated area	☐
Account for personnel on duty	☐
Take shelter:	

Go to an interior room on the lowest floor or designated storm shelter • Get under a sturdy piece of furniture • Use your arms to protect head and neck	☐
If the facility is damaged by the tornado, notify Supervisory Personnel	☐
Go to the scene of the incident to evaluate the situation • Be aware of broken glass and downed power lines • Check for injuries • Use caution entering a damaged building	☐
Update Supervisory Personnel/Management	☐
Conduct post-emergency evaluation and report	☐

2.6 HURRICANE

Since hurricanes are very erratic in nature, Hurricane Preparedness Plan SOP (Standard Operating Procedures) will be implemented and followed when a storm path is predicted for a particular operational area. The SOP will provide procedures for a safe and orderly shutdown of operational assets within the predicted storm path. The procedures will also enact an organized tracking effort for hurricane preparedness activities which will allow for employees to handle company as well as their own domestic hurricane preparedness needs.

The Hurricane Preparedness Plan (SOP) is divided into two sections based on potential weather survey tracking forecasts and the timetables predicted for landfall within operating assets.

HURRICANE CHECKLIST	
TASK	
Tropical Storm / Hurricane forms and is being tracked by National Weather Surveys	
Hurricane Season begins, general coastal areas heighten awareness to storm reports.	☐
Tropical Storm/Hurricane forms or enters general area of operational assets.	☐
Hurricane Preparedness Standard Operating Procedures Implemented	
Tropical Storm/Hurricane is 48 - 36 hours away and path is predicted in the direction of the operational assets threshold parameter to implement the Hurricane Preparedness Plan (SOP).	☐
Hurricane Preparedness Plan (SOP) is implemented.	☐
Site Specific Actions:	
In the event of a hurricane, KPL will follow PRC1801.030 - Hurricane_Tropical Storm Preparedness.	☐

2.7 FLOOD

FLOOD CHECKLIST	
TASK	
When conditions warrant, perform continuous monitoring of the situation by listening to radio and/or television reports (**FIGURE 3.1-7**) • Flash flood watch means flooding is possible • Flash flood warning means flooding is occurring or is imminent	☐
As appropriate, update Supervisory Personnel	☐
Establish an evacuation plan (**SECTION 2.2**)	☐
Take preliminary actions to secure the facility before flooding and mandatory evacuation	☐
Consider having sandbags brought to sites that could be affected by the flooding	☐
Consider obtaining portable pumps and hoses from local suppliers or from other petroleum service locations in the area	☐
Consider removing product from underground storage tanks, sumps, and separators (if applicable). Consider replacing with water to prevent them from floating out of the ground	☐
Keep at least a normal bottom in above ground tankage, more if possible	☐
Plug rack drains and facility drains connected to the sump	☐
Consider anchoring bulk additive tanks, fuel barrels, empty drums, and propane tanks (if applicable)	☐
Notify Supervisory Personnel/Management that the facility will be closed	☐
Consider shutting off high voltage power and natural gas lines	☐
Close valves on product and additive storage tanks	☐
Before evacuation, know where employees will be residing and obtain phone numbers so they can be contacted if additional emergencies occur	☐
Conduct a post-emergency evacuation and report	☐
Maintain hazards awareness: • Structural damage • Downed power lines • Leaking natural gas, water, and sewer lines • Poisonous snakes and other wildlife sheltering in structures, vehicles, and furniture • Avoid direct contact with flood water, mud, and animal carcasses	☐

2.8 MEDICAL

MEDICAL CHECKLIST	
TASK	
Summon Emergency Medical Services (EMS) to the scene (**FIGURE 3.1-5**)	☐
Do not move the patient unless a situation (such as a fire) threatens patient's life	☐
If trained, provide first aid until the EMS arrive at the scene	☐
As the situation warrants, try to stop the bleeding and keep the patient breathing until the EMS arrive at the scene	☐
The rescuer's role includes: • Removing the patient from any situation threatening patient's life or the lives of rescuers • Correcting life-threatening problems and immobilizing injured parts before transporting the patient • Transporting the patient in a way that minimizes further damage to injured parts • Administering essential life support while the patient is being transported • Observing and protecting the patient until medical staff can take over • Administering care as indicated or instructed	☐

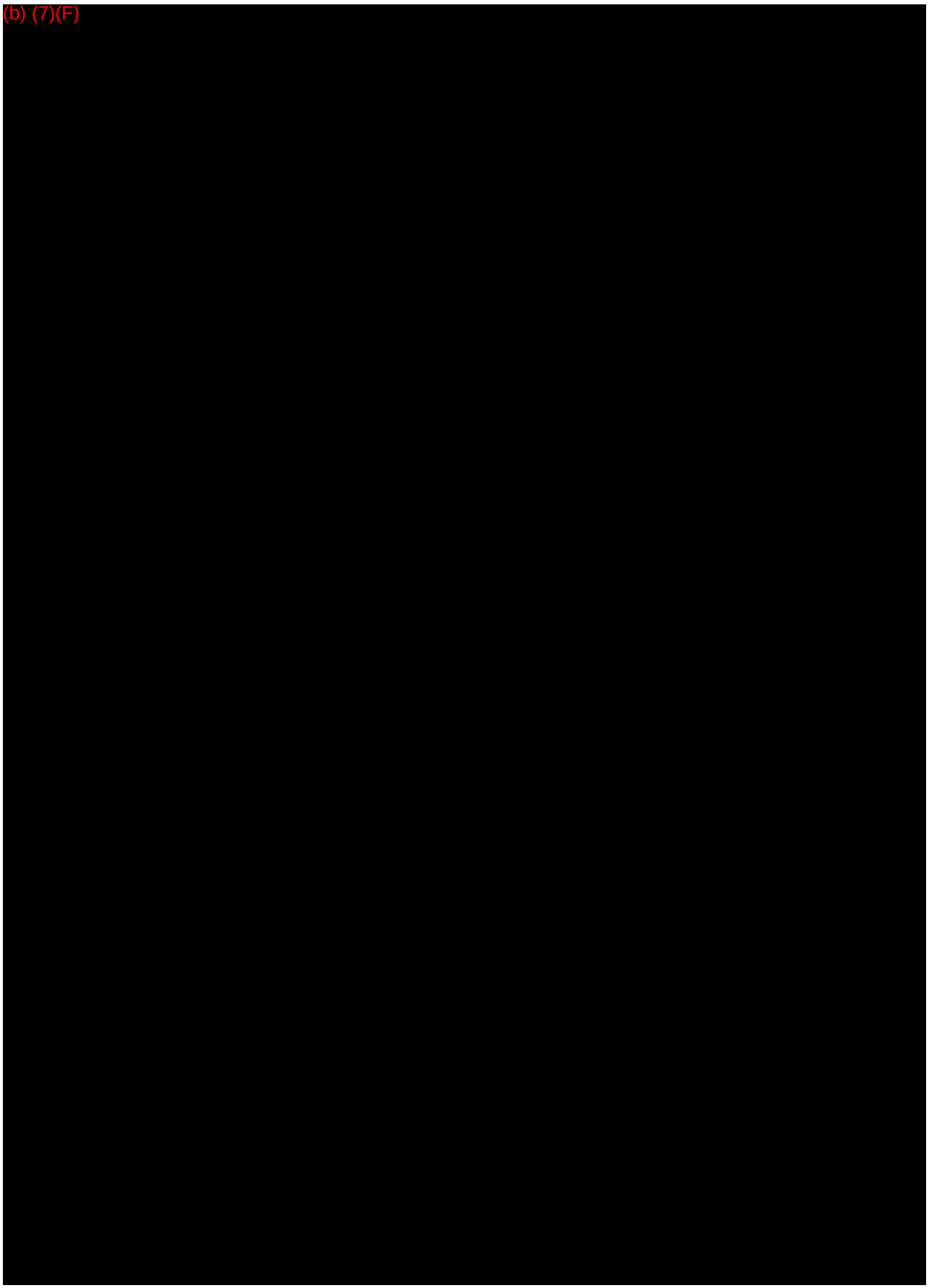
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2.11 FIRE AND/OR EXPLOSION

Your first consideration is always the safety of people in the immediate area, including your own.

The first responder's initial objective is site management.

FIRE AND/OR EXPLOSION CHECKLIST	
TASK	
At a manned facility	
Evaluate the situation; approach cautiously from upwind; do not rush in	☐
Notify the local police and fire departments (as appropriate)	☐
Notify Supervisory Personnel	☐
Appropriately trained personnel may attempt to extinguish the fire if it is in the incipient (early) stage and **if it can be done safely**	☐
If the fire/explosion is a result of a pipe rupture, isolate product release by closing valves	☐
Undertake basic site control: • Make an assessment of hazards • Isolate the area • Keep people away from the scene and outside the safety perimeter as per the evacuation plan (**SECTION 2.2**) • Establish safety zones and escape routes	☐
Respond to the fire: • Establish a Command Post and lines of communication • Maintain site control • Establish Incident Command/Unified Command as necessary (**SECTION 4.4**)	☐
Call in additional resources if on-scene personnel and equipment are inadequate to handle the emergency (**FIGURE 3.1-4**, **FIGURE 3.1-6**)	☐
Conduct a post-emergency evaluation (**SECTION 8.3**) and report	☐

2.11 FIRE AND/OR EXPLOSION, CONTINUED

Your first consideration is always the safety of people in the immediate area, including your own.

The first responder's initial objective is site management.

FIRE AND/OR EXPLOSION CHECKLIST, CONTINUED	
TASK	
At an unmanned facility	
Handle the call	☐
Notify the local police and fire departments (as appropriate)	☐
Notify Supervisory Personnel	☐
Go to the incident scene to evaluate the situation; approach cautiously from upwind; do not rush in	☐
Undertake basic site control: • Make an assessment of hazards • Evaluate the area for visitors or personnel in the area prior to the event • Isolate the area • Keep people away from the scene and outside the safety perimeter as per the evacuation plan (**SECTION 2.2**) • Establish safety zones and escape routes	☐
Update Supervisory Personnel/Management	☐
If the fire/explosion is a result of a pipe rupture, isolate the product release by closing valves	☐
Respond to the fire: • Establish a Command Post and lines of communication • Maintain site control • Establish Incident Command/Unified Command as necessary (**SECTION 4.4**)	☐
Call in additional resources if on-scene personnel and equipment are inadequate to handle the emergency (**FIGURE 3.1-4**, **FIGURE 3.1-6**)	☐
Conduct a post-emergency evaluation (**SECTION 8.3**) and report	☐

2.12 RELEASE WITH A FLAMMABLE VAPOR CLOUD

Once a Flammable vapor cloud is detected, the need for assessment of the situation is paramount in implementing and sustaining an effective response. In every case, we must collect accurate initial information (**FIGURE 3.1-2**). The information acquired is passed along to responsible company officials to ensure proper actions are taken.

As the situation dictates, a thorough and accurate assessment is necessary to determine specific activities required to respond to the situation.

INCIDENT ASSESSMENT

Person Assessing the Incident	
Approach any suspected emergency incident or suspected release cautiously.	☐
Take appropriate personal protective measures (Do not enter any areas without proper Personal Protective Equipment (PPE).	☐
Eliminate possible sources of ignition in the vicinity of the release (if applicable, use Emergency-Stops).	☐
Initiate a general site assessment giving emphasis to the following:	
• Immediate danger to the general public	☐
• Immediate danger to the environment (e.g. waterways, wildlife)	☐
• Identify significant impact areas (e.g. highways, railroads, or commercial businesses)	☐
• Identify topographic features that could impact the migration of the release	☐
• Identify any municipalities or public areas such as churches, parks, etc.	☐
• Identify other requirements that will be necessary when inside third party facilities.	☐
• Make notifications and call for resources as needed. (**SECTION 3.1**)	☐
INITIATE THE INITIAL INCIDENT RESPONSE AND SPILL MITIGATION PROCEDURES DESCRIBED IN THIS PLAN (FIGURE 2.1-1)	☐

2.12 RELEASE WITH A FLAMMABLE VAPOR CLOUD, CONTINUED

INCIDENT ASSESSMENT	
Flammable Vapor Cloud Release - General Response Guide	**Comments**
STAY UP WIND, UP HILL, AND UP STREAM OF THE VAPOR CLOUD AND THE SOURCE. Assess wind direction and vapor cloud movement. Be aware of possible weather changes that could affect cloud movement.	
Sound the Alarm; Alert personnel and affected public as soon as possible after discovering that a flammable or otherwise hazardous vapor cloud is present.	
Determine Extent and Coverage of the Vapor Cloud. A responder may use Audio, Visual and Olfactory (AVO) Methods along with wind direction and handheld monitors to determine the initial extent and coverage of a vapor cloud. (**Section 2.1.5 Spill Mitigation Procedures**).	
The Emergency Response Guidebook (ERG) - can also supply generic and specific hazard information regarding public safety for vapor clouds	

emanating from a flammable gas, HVL or other hazardous liquid release.	
Site Management and Control; If "Local Emergency Responders" such as fire or police are already on scene, ensure operations are coordinated and unified. If these resources are not on site; request emergency and medical support services as needed.	
Vacate the Hazard Area - Direct non-essential persons to move in a crosswind direction away from the release to the designated muster point for roll call and further instructions. Consider protective actions (such as evacuation) within the specified distance upwind of the release and any identified Vapor Cloud.	
Establish Exclusion Zone ? Command the physical layout of the incident by establishing a "Hot zone" which safely encompasses the Vapor Cloud area. The physical layout of this exclusion zone should be communicated to all personnel operating on the site	
Only qualified emergency service or rescue personnel should consider incident site entry as safety conditions and the On-scene Incident Commander allow.	
Determine the concentrations of toxic or flammable gases present using both fixed monitors (if available) and portable intrinsically safe instruments.	
Defensive Operations are always desirable over Offensive tactics if they accomplish the same objectives. Only the On-Scene Incident Commander can deem it necessary to enter a "Hot Zone" and when approved this should be done only by a trained and qualified Hazardous-Material Team with adequate resources.	
If a release is occurring, fixed water monitors, and/or sprinkler or deluge systems can be activated to dilute, disperse, and "scrub" the vapors and prevent their advancement to uncontrolled areas (This tactic is situation dependent and may not be the appropriate tactic for all situations, i.e. dealing with lighter than air gases or certain HVL?s).	
Manage water supply, and control runoff/drainage, care should be taken to activate only those water systems that can effectively mitigate vapors.	
Vapor Cloud Surveillance. Continuous surveillance and evaluation of the extent and coverage of Vapor Cloud may be accomplished through various methods. Audio, Visual and Olfactory (AVO) Methods along with handheld monitors may be used to further refine the determined extent and coverage of a vapor cloud. As resources and personnel arrive, additional portable and fixed positions monitors can be set up to continuously monitor, gauge and predict the extent and coverage of the vapor cloud. These may include, but not limited to four gas monitors with LEL capability and Area Monitors	
SECONDARY RESPONSE ACTIONS (Refer to IMT job descriptions in **SECTION 4.6**).	
FACILITY SPECIFIC RESPONSE CONSIDERATIONS (Refer to **SECTION 6** for maps, tactical plans, and sensitivity information.	

SECTION 3 Last revised: January 29, 2013

NOTIFICATIONS / TELEPHONE NUMBERS

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3.1 Emergency Information and Notification Procedures

Figure 3.1-1 - Emergency Notification Flow Chart

Figure 3.1-2 - First Report of Incident Form

Figure 3.1-3 - PHMSA Spill Report Form

Figure 3.1-4 - Internal Notifications and Telephone Numbers

Figure 3.1-5 - External Notifications and Telephone Numbers

Figure 3.1-6 - Oil Spill Response Contractor Resources and Telephone Numbers

Figure 3.1-7 - Additional Resources, Notifications, and Telephone Numbers

Figure 3.1-8 - Adjoining Neighbors

3.1 EMERGENCY INFORMATION AND NOTIFICATION PROCEDURES

There are two classes of emergency events, "reported" and "confirmed."

A "reported" emergency is either an event reported by someone other than a company employee and which cannot be immediately confirmed or a pressure or flow rate change that is not confirmed by a second source.

A "confirmed" emergency is an event reported by a company employee or reported by someone other than a company employee and "confirmed" by a second source. Any event that threatens lives or public safety if immediate action is delayed, is to be considered a confirmed emergency.

In either case, upon receiving notification about an emergency event, the company employee will take immediate actions (**SECTION 2**) and begin notification procedures based on the situation.

The general “Internal Incident Notification Sequence” is as follows:

- **First:** Isolate the source and then call emergency services
- **Second:** Dial: 1-316-828-5001 :
  - Koch Security will answer:
  - ?Koch Security, what is your Emergency??
- **Third:** Reply with one of the following Incident Types:
  - Injury / Illness
  - Environmental Incident
  - Vehicle Accident
  - Pipeline Hit
  - Fire, Explosion, or Lightning Strike
  - Third Party Release on KPL Property
  - Operations Priority Event
- **Fourth:** Security will ask:
  - Your name, location, date and time of incident, severity of the incident, if response resources are needed, and if emergency services are required
  - For an Environmental incident, the amount, product type, source, affected areas, and if response resources are needed
- **Fifth:** After activating the Communicator:
  - Expect a call-back from the Compliance on-call person within 15 minutes.
  - If the incident requires Oil Spill Response resources, contact your QI.
  - Important: Reactivate the Communicator and/or call your QI if you do not receive a call-back from the Compliance on-call person.

3.1 EMERGENCY INFORMATION AND NOTIFICATION PROCEDURES, CONTINUED

Should the person making notifications encounter problems with the notification process listed

above, individual calls may be required to ensure appropriate notifications are made.

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

Information required (in order below):

1 - Your name and phone number, type of incident reported and location

2 - Supervisor name.

3 - Time and Date

4 - Product released and estimated quantity

5 - Source of release

6 - Affected medium (Land or Water)

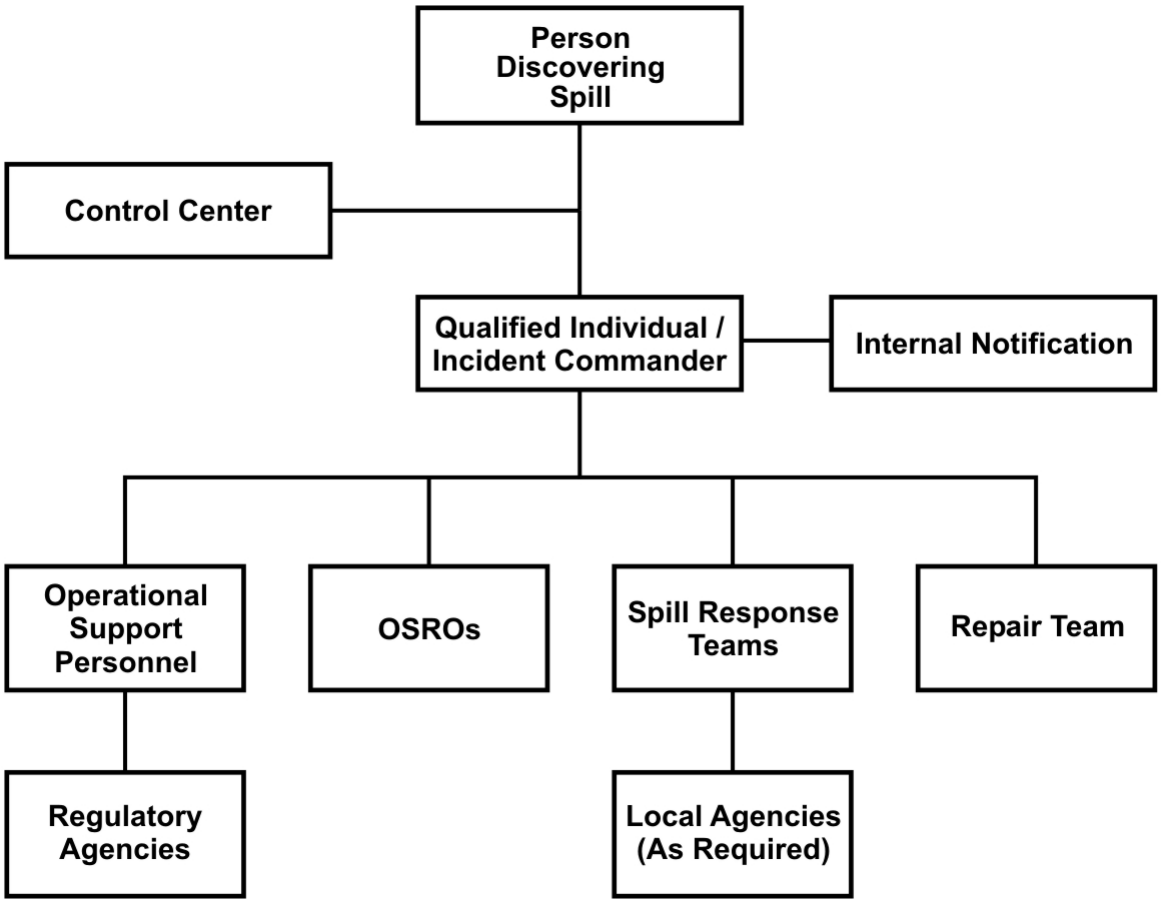
7 - Affected employee (if applicable)

8 - Has area been secured?

Note: Remember -

1) **Safety is our #1 concern**
2) **Report only the facts!**

FIGURE 3.1-1 - EMERGENCY NOTIFICATION FLOW CHART



This section also contains the following:

- FIGURE 3.1-2 provides a First Report of Incident Form. This form is utilized for initial internal reporting.
- FIGURE 3.1-3 provides a PHMSA Spill Report Form. This form is utilized for initial PHMSA external reporting.
- FIGURE 3.1-4 provides internal notification summary and documentation form to assist in documenting notifications.

FIGURE 3.1-2 - FIRST REPORT OF INCIDENT FORM

***This is a sample form. Actual documentation should be submitted as a First Report of Incident into the Lynx Database as required by KPL G120.010.**

Short Description:	
Responsible Dept. / Unit:	
Supervisor:	
Select a Level of Consequence and Check all that Apply: **Level of Consequence:** ☐ Near Miss ☐ Incident	
General:	

☐ Economic Loss	☐ Injury
☐ Environmental	☐ Property Damage
☐ Fire / Explosion	☐ Quality
☐ Health / Illness	☐ Security

Where did the incident occur? Location:			
Specific Location:			
When did the incident occur?	**Date Occurred:** / /20_____	**Time:**	☐ AM ☐ PM
	Date Reported: / /20_____	**Time:**	☐ AM ☐ PM
Enter a full description of the Incident:			
Weather:		**PSM Incident:**	
Incident Flags: ☐ Key Risk	☐ Right of Way Encroachment	☐ Third Party	

Equipment Involved	Critical	Comment

Witness Name:	Address:	Phone:

Contractor	Involvment Type

Enter any Injury / Illness Information:

Patient	Class	Body Part	Position

Enter any Release Information:

Chemical Agent	Medium	Amount	Unit

Actual Risk Rating:	**Potential Risk Rating:**

FIGURE 3.1-3 - PHMSA SPILL REPORT FORM
(This is guidance for information to be supplied to PHMSA)

1. NAME AND ADDRESS OF COMPANY:

2. NAME OF PIPELINE:

3. TIME OF DISCHARGE:

4. LOCATION OF DISCHARGE:

5. TYPE OF OIL INVOLVED:

6. REASON FOR DISCHARGE (e.g., material failure, excavation damage, corrosion):

7. ESTIMATED VOLUME OF OIL DISCHARGED:

8. WEATHER CONDITIONS ON SCENE:

9 ACTION TAKEN OR PLANNED BY PERSONS ON SCENE:

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

*24-Hour Number

SPILL MANAGEMENT TEAM				

NAME/TITLE	PHONE NUMBER	RESPONSE TIME (hours)	RESPONSIBILITY DURING RESPONSE ACTION	RESPONSE TRAINING TYPE[1]		
				1	2	3
*Emergency Number (24-Hour) - Refined Products Pipeline Control Center	(800) 666-0150* (Office)	NA	Emergency Communications #:			
*Emergency Number (24-Hour) - Crude Oil Pipeline Control Center	(800) 666-0051* - Manned 24/7 (Office)	NA	Emergency Communications #. Manned 24/7			
*Non-Emergency - Koch One Call Center (KOCC)	(316) 828-4073 (during business hours) (Office) (b) (6) [redacted]	NA	Non-Emergency communications #.			
*Koch Special Situations Hotline	(800) 824-6149 (Office)	NA	Emergency Communications #:			
Jerry Page Inspection Team Leader **Qualified Individual**	512-237-3371 (Office) (361) 543-6010 *(Mobile)	1.0-4.0	On-Scene Incident Commander, EOC Director Operations: Repair Group Supervisor,	x	x	x
Tom Heilman Area Operations Manager & Fort Worth Terminal Manager **Qualified Individual**	(817) 685-3472 (Office) (817) 688-4981 *(Mobile)	1.0-4.0	QI, Incident Commander, Emergency Coordinator	x	x	x
Tim Larsen Terminal Manager **Qualified Individual**	(254) 756-5442 ext. 202 (Office) (254) 366-2441 *(Mobile)	1.0-4.0	Incident Commander; Emergency Coordinator	x	x	x
Tom Heilman Area Operations Manager **Qualified Individual**	(817) 685-3472 (Office) (817) 688-4981 *(Mobile)	1.0-4.0	Operations	x	x	x
Barry Scheer Project Manager	(361) 242-5522 (Office) (b) (6) [redacted]	2.0-8.0	Command: EOC Director Command: On-Scene Incident	x	x	x

Qualified Individual	(361) 877-2581 *(Mobile)		Commander, Any ICS Positions			
Gabriel Lugo Emergency Response Manager **Qualified Individual**	(361) 242-5544 (Office) (b) (6) (361) 877-0975 *(Mobile)	2.0-8.0	Command: On-Scene Incident Commander EOC Manager All ICS Positions	x	x	x

EMERGENCY RESPONSE TRAINING TYPE[1]	
There are three different types of training described below including HAZWOPER, OPA, and Qualified Individual/Incident Command Training. An "x" has been placed in the applicable columns (type 1, 2, or 3) in the table above for the type of training completed by each individual.	
TYPE[1]	**DESCRIPTION**
1	29 CFR 1910.120 HAZWOPER
2	OPA (Training Reference for Oil Spill Response) All Facility Personnel, IMT, QI Components
3	Qualified Individual/Incident Command Training

NOTE: Training records will be maintained in accordance with the Company Records Retention Schedule.

FIGURE 3.1-4 - INTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

SPILL MANAGEMENT TEAM						
NAME/TITLE	**PHONE NUMBER**	**RESPONSE TIME (hours)**	**RESPONSIBILITY DURING RESPONSE ACTION**	**RESPONSE TRAINING TYPE[1]**		
				1	**2**	**3**
Tim Woodruff Operations Supervisor **Qualified Individual**	361-242-5511 (Office) (b) (6) 361-813-5124 *(Mobile) (b) (6)	1.0-6.0	Command: On-Scene Incident Commander, EOC - Liaison (FHR Refinery), Operations: Section Chief, UCS	x	x	x
Bennie Rodriguez Operations Supervisor **Qualified Individual**	(361) 526-2254 (Office) (361) 877-6040 *(Mobile)	2.0-6.0	On-Scene Incident Commander, EOC Director, Operations: Section Chief	x	x	x

Jeffrey Gordon Operations Supervisor **Qualified Individual**	(817) 685-3471 (Office) (b) (6) [redacted] (817) 688-0089 *(Mobile)	1.0-6.0	Incident Commander, Operations Section Chief, EOC Liaison (City Representation)	x	x	x
Wade Parrott Assistant Division Manager **Qualified Individual**	(361) 242-5593 (Office) (b) (6) [redacted] (612) 965-2438 *(Mobile)	4.0 - 8.0	On-Scene Incident Commander, EOC Director, Crisis Manager	x	x	x
David J. Fritsche Pipeline Operator - Senior	(979) 884-0181 (Office) (979) 540-8151 *(Mobile)	1.0-6.0	Operations: Division / Group Supervisor, Branch Director Operations: Section Chief	x	x	
Timothy Smith Pipeline Operator	254-756-5442 Ext. 206 (Office) 254-292-9417 *(Mobile)	1.0-4.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Brian Snow Mechanical Technician	(817) 685-3471 (Office) (254) 366-4262 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Danny Letterman Corrosion Technician	(512) 332-2150 (Office) (979) 820-5161 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Division / Group Supervisor, Branch Director	x	x	
Randy Grimes Terminal Manager	(210) 666-6621 (Office) 210-296-8374 *(Mobile)	1.0-6.0	Incident Commander, Emergency Coordinator	x	x	x
John Beacom	979-272-1294 (Office) 361-215-7290	1.0 - 6.0	First Responder, Operations: Strike Team / Task Force Leader or Single	x	x	

Pipeline Operator	*(Mobile)		Resource Boss Operations: Division / Group Supervisor, Branch Director			

EMERGENCY RESPONSE TRAINING TYPE[1]	
There are three different types of training described below including HAZWOPER, OPA, and Qualified Individual/Incident Command Training. An "x" has been placed in the applicable columns (type 1, 2, or 3) in the table above for the type of training completed by each individual.	
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FIGURE 3.1-4 - INTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

SPILL MANAGEMENT TEAM						
NAME/TITLE	**PHONE NUMBER**	**RESPONSE TIME (hours)**	**RESPONSIBILITY DURING RESPONSE ACTION**	**RESPONSE TRAINING TYPE[1]**		
				1	**2**	**3**
Ivan Jaskinia Corrosion Technician	(361) 543-6221 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Gary Jamison Pipeline Operator	210-661-6461 (Office) 361-290-6758 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Richard Soppe Corrosion Technician	210-661-6461 (Office) 361-290-7596 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging	x	x	

			Area Manager			
David Wingfield Pipeline Inspector	(409) 989-6086 (Office) (361) 215-9684 *(Mobile)	1.0 -10.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss (Pipeline Repair)	x	x	
Rick Garcia Pipeline Inspector	361-242-5557 (Office) 361-816-5024 *(Mobile)	1.0 -10.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss (Pipeline Repair)	x	x	
Steve Ostrom Director of Engineering and Construction	361.242.5501 (Office) 361-215-3890 *(Mobile)	2.0-8.0	Crisis Manager EOC Manager Planning: Technical Specialist, Repair and Pipeline Construction	x	x	
Douglas Beck Pipeline Operator	(512) 308-7330 (Office) (512) 308-7330 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Division / Group Supervisor, Branch Director	x	x	
Ben Pfaff Mechanical Technician	210-661-6451 (Office) 361-208-5192 *(Mobile)	1.0-6.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Pablo Cabrera Pipeline Operator	361-543-0742 (Office) 361-543-0742 *(Mobile)	1.0-6.0	First Responder, Operations: Strike Team / Task Force Leader or Single Resource Boss, Operations: Staging Area Manager	x	x	
Benny Mumme IMP Preventive Measure Capability Leader	(361) 242-5506 (Office) (361) 877-2590 *(Mobile)	2.0-8.0	Planning: Technical Specialist, Integrity Specialist Unit Operations: Section Chief, UCS Planning: Section Chief, UCS	x	x	

EMERGENCY RESPONSE TRAINING TYPE[1]
There are three different types of training described below including HAZWOPER, OPA, and

Qualified Individual/Incident Command Training. An "x" has been placed in the applicable columns (type 1, 2, or 3) in the table above for the type of training completed by each individual.

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3	Qualified Individual/Incident Command Training

NOTE: Training records will be maintained in accordance with the Company Records Retention Schedule.

FIGURE 3.1-4 - INTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

SPILL MANAGEMENT TEAM						
NAME/TITLE	PHONE NUMBER	RESPONSE TIME (hours)	RESPONSIBILITY DURING RESPONSE ACTION	RESPONSE TRAINING TYPE[1]		
				1	2	3
Jim Lee Measurement Capability Leader	(361) 242-5525 (Office) (361) 877-2876 *(Mobile)	2.0-8.0	Planning: Technical Specialist, Measurement Unit Leader	x		
Stacey Kanak DOT Capability Leader	(361) 242-5528 (Office) (361) 877-2587 *(Mobile)	2.0-8.0	Liaison Officer PIO Assistant: KCPS Liaison Planning: Technical Specialist; DOT Compiance Unit Leader	x	x	
Jerry Edwards Work Management / Records Coordinator	(361) 242-5552 (Office) (361) 816-6598 *(Mobile)	2.0-8.0	Planning: Documentation Unit Leader Planning: Resource Unit Leader Planning: Situation Unit Leader	x	x	
Wayne Brandl Maintenance Supervisor	(361) 242-5548 (Office) (b) (6) (361) 318-2463 *(Mobile)	2.0-8.0	Command: On-Scene Incident Commander, EOC - Director, Operations: Section Chief, UCS	x	x	x
			Operations: Repair			

Bobby Marroquin Pipeline Operator	361-242-5527 (Office) 361-537-0957 *(Mobile)	2.0-8.0	Group Supervisor Operations: Division / Group Supervisor, Branch Director Operations: Section Chief	x	x	
Wesley Shirocky Mechanical Technician	(512) 237-3371 (Office) (361) 290-3785 *(Mobile)	2.0-8.0	First Responder, Operations: Strike Team / Task Force Leader or Single Resource Boss, Operations: Staging Area Manager	x	x	
Eulalio Orta Project Engineer	361-242-5546 (Office) 361-215-0871 *(Mobile)	2.0-8.0	Planning: Section Chief, USC Logistics: Section Chief, UCS Operations: Group Supervisor, Repair Group	x	x	
Michelle Dillon Right of Way Agent	361-242-5562 (Office) 361-290-3549 *(Mobile)	2.0-8.0	Planning: Technical Specialist, Right of Way Unit Leader Command: PIO Assistant: Local Emergency Responders	x	x	
Rene Colon Pipeline Inspector	361-242-5526 (Office) 361-290-8995 *(Mobile)	2.0-8.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss (Pipeline Repair)	x	x	
Amanda Miles Cost Analyst	361-242-5509 (Office) (361) 813-9381 *(Mobile)	2.0-8.0	Finance / Admin Section: Chief, UCS Planning: Resource Unit Leader Logistics: Service Branch Director		x	

EMERGENCY RESPONSE TRAINING TYPE[1]

There are three different types of training described below including HAZWOPER, OPA, and Qualified Individual/Incident Command Training. An "x" has been placed in the applicable columns (type 1, 2, or 3) in the table above for the type of training completed by each individual.

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3	Qualified Individual/Incident Command Training

NOTE: Training records will be maintained in accordance with the Company Records Retention Schedule.

FIGURE 3.1-4 - INTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

SPILL MANAGEMENT TEAM						
NAME/TITLE	**PHONE NUMBER**	**RESPONSE TIME (hours)**	**RESPONSIBILITY DURING RESPONSE ACTION**	**RESPONSE TRAINING TYPE[1]**		
				1	**2**	**3**
Sandra Baxter Administrative Assistant	361-242-5540 (Office)	2.0-8.0	Documentation, Supply and Services Branch, Logistics		x	
David Kuck Pipeline Operator	361-876-9345 *(Mobile)	2.0 - 8.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
David Tullos Automation& Instrument Technician	(512) 332-2485 (Office) (817) 228-9386 *(Mobile)	2.0-8.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Michael Cortez Mechanical Technician	361-215-8983 *(Mobile)	3-8	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Yoalmo Salazar Pipeline Operator	(817) 685-3471 (Office) (817) 240-9415 *(Mobile)	In Training	First Responder			
John McKenzie Electrical Technician	817-685-3471 (Office) 682-459-3161 *(Mobile)	In Training	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Section			

			Chief			
Mark Bontempo Pipeline Operator	512-237-0220 (Office) 512-237-0220 *(Mobile)	In Training	First Responder, Operations: Strike Team / Task Force Leader or Single Resource Boss, Operations: Staging Area Manager	x	x	
Corey Nelson Pipeline Inspector	361-876-7036 *(Mobile)	In Training	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss (Pipeline Repair)	x	x	
Matt McCauley Environmental Coordinator	361-242-5580 (Office) 361-290-9448 *(Mobile)	In Training	Command: On-Scene Incident Commander Command: Government Liaison Operations: Waste Management Group Supervisor	x	x	
Dyke Hicks Inspection Tech Capability Leader	(361) 242-5570 (Office) 316-350-4079 *(Mobile)	In Training	FHR Refinery / Crisis Team Liaison EOC Liaison (City Representation) Crisis Manager	x	x	

EMERGENCY RESPONSE TRAINING TYPE[1]

There are three different types of training described below including HAZWOPER, OPA, and Qualified Individual/Incident Command Training. An "x" has been placed in the applicable columns (type 1, 2, or 3) in the table above for the type of training completed by each individual.

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3	Qualified Individual/Incident Command Training

NOTE: Training records will be maintained in accordance with the Company Records Retention Schedule.

FIGURE 3.1-4 - INTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

Note: Notification Forms can only be printed from the Section File (not available in the Forms Navigator)

*24-Hour Number

SPILL MANAGEMENT TEAM				
		RESPONSE	RESPONSIBILITY	RESPONSE

NAME/TITLE	PHONE NUMBER	TIME (hours)	DURING RESPONSE ACTION	TRAINING TYPE[1]		
				1	2	3
Robert Fairly Mechanical Technician	361-526-2532 (Office) 361-876-3967 *(Mobile)	In Training	First Responder, Operations: Strike Team / Task Force Leader or Single Resource Boss, Operations: Staging Area Manager	x	x	
Jessica Canales Project Administrative Assistant	361-242-5519 (Office)	In Training	Planning: Resource Unit Leader Logistics: Service Branch Director Finance / Admin: Section Chief		x	
Neal Goings Pipeline Inspector	830-780-3266 X306 (Office) 361-816-7642 *(Mobile)	In Training	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss (Pipeline Repair)	x	x	
Jon Donlon RELIABILITY ENGINEER	(361) 242-5533 (Office) (361) 215-7323 *(Mobile)	In Training	Logistics: Service Branch Director, Planning: Resource Unit Leader, Planning: Section Chief, UCS	x	x	
Zeke Sanchez Right of Way Agent	(361) 242-5550 (Office)	In Training	Planning: Technical Specialist, Right of Way Unit Leader, Command: PIO Assistant: Local Emergency Responders	x	x	
Jesse Tapley PIPELINE OPERATOR	(210) 661-6451 (Office) (210) 394-4149 *(Mobile)	In Training	First Responder, Operations: Strike Team / Task Force Leader or Single Resource Boss	x	x	
GILBERT GARCIA PIPELINE INSPECTOR	(361) 816-7133 *(Mobile)	In Training	Operations: Strike Team / Task Force Leader or Single Resource Boss	x	x	
John Fort HEALTH & SAFETY SPECIALIST	(361) 876-5416 *(Mobile)	In Training	Safety Officer, On-Scene IC, EOC Manager	x	x	
			Operations: Division			

Mark Martin Assistant Supervisor	361-816-6869 *(Mobile)	2.0 - 8.0	/ Group Supervisor, Branch Director Operations: Section Chief	x	x	

EMERGENCY RESPONSE TRAINING TYPE[1]
There are three different types of training described below including HAZWOPER, OPA, and Qualified Individual/Incident Command Training. An "x" has been placed in the applicable columns (type 1, 2, or 3) in the table above for the type of training completed by each individual.

TYPE[1]	DESCRIPTION
1	29 CFR 1910.120 HAZWOPER
2	OPA (Training Reference for Oil Spill Response) All Facility Personnel, IMT, QI Components
3	Qualified Individual/Incident Command Training

NOTE: Training records will be maintained in accordance with the Company Records Retention Schedule.

FIGURE 3.1-5 - EXTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

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) c/o USCG 2100 2nd Street, Southwest Room 2111-B Washington, DC 20593-0001 For online reporting http://nrc.uscg.mil/	(800) 424-8802* (202) 267-2675* (202) 267-1322 (Fax) TDD: (202) 267-4477	
Recommended		
State Agencies - Texas		
Regional Director: Patty Reeh 2800 South IH 35 Ste. 100 Austin, Texas 78704-5700	(512) 339-2929 (512) 339-3795	
Regional Director: Richard Garcia 14250 Judson Road San Antonio, Texas 78233-4480	(210) 490-3096 (210) 545-4329	
Regional Director: Susan Clewis NRC Building Ste. 1200 6300 Ocean Drive Unit 5839 Corpus Christi, Texas 78412-5839	(361) 825-3100 (361) 825-3101	
Regional Director: Tony Walker 2309 Gravel Drive Fort Worth, Texas 76118-6951	(817) 588-5800 (817) 588-5700	
State Emergency Response Commission	(800) 832-8224	

(SERC) Texas Division of Emergency Management PO BOX 4087, MSC 0223 Austin, TX 78733 (You must inform SERC what agency to contact: TCEQ / TGLO / RRC)	(800) 452-2791 (512) 424-5677	
Texas Commission on Environmental Quality (TCEQ) Region 9 - Waco Regional Director: Patty Reeh 6801 Sanger Avenue Ste. 2500 Waco, Texas 76710-7826	(254) 751-0335 (254) 772-9241	
Texas Railroad Commission District 5 and some of District 9 Oil & Gas Office 619 North Hinderson Highway Kilgore, TX 75662	(903) 984-3026 (903) 984-8581	
Texas Railroad Commission, District 1&2 Oil & Gas San Antonio District Office 115 East Travis Suite 1610 San Antonio, TX 78205	(210) 227-1313	
Texas Railroad Commission, Oil and Gas Division, District 3 - Houston 1706 Seamist Drive, Suite 501 Houston, TX 771008-3135	713-869-5001 713-869-9621	
Texas State One Call Notification Center 11 880 Greenville Avenue Suite 120 Dallas, TX 75243	(800) 344-8377 (DIG TESS) (866) 402-8544 (972) 280-8790	
County Agencies - Texas		
Bastrop County		
Bastrop Co. Sheriff Department 200 Jackson Street Bastrop, TX 78602	(512) 303-1080 (512) 303-5779 (512) 549-5110	
Rosanky Volunteer Fire Department 142 High Street Bastrop, TX 78602	(512) 237-2893	
Bell County		
Bell Co. LEPC 101 N. College Kileen, TX 76541	(254) 220-8864	

Northern Zone 3 - 14

FIGURE 3.1-5 - EXTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

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		
Bell County		
Bell Co. Sheriff Department 104 S Main St Belton, TX 76513	(254) 933-5412	
Bexar County		
Bexar Co. Sheriff Department 203 West Nueva Street Suite 309 San Antonio, Texas 78207	(210) 335-6010 911	
Brooke Army Medical Center 3851 Roger Brooke Dr # 3600 Fort Sam Houston, TX 78234	(210) 916-4141	
LEPC EOC PO BOX 35488 San Antonio, Texas 78235	210-286-5537	
San Antonio Fire Department 115 Auditorium Circle San Antonio, TX 78205	(210) 207-8400 911	
San Antonio Police Department 214 West Nueva San Antonio, TX 78207	(210) 207-7484 911	
Burleson County		
Burleson Co. Emergency Manager 100 West Buck Suite 307 Caldwell, TX 77836	(979) 567-2008 (979) 567-4343	
Burleson Co. Sheriff Department 1334 State Highway 21 E Caldwell, TX 77836	(979) 567-4343	
Caldwell Fire Department 1334 State Highway 21 East Caldwell, TX 77836	(979) 567-4343	
Caldwell Police Department 1105 Commerce Street Caldwell, TX 77836	(979) 567-4455	
Caldwell County		
Caldwell Co. LEPC 1400 FM 20 E Ste E	(512) 398-1822 (512) 995-1360	

Lockhart, TX 78644		
Caldwell Co. Sheriff Department 1204 Reed Drive Caldwell, TX 78644	(512) 398-6777 (512) 398-6747	
Falls County		
Falls Co. LEPC 125 Bridge St #106 Marlin, TX 76661	(254) 883-3376	
Falls Co. Sheriff Department 2847 State Highway 6 South Marlin, TX 76661	(254) 883-1431 (254) 883-2912	

FIGURE 3.1-5 - EXTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

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		
Fayette County		
Fayette Co. LEPC & Emergency Manager 151 North Washington Room 301 Lagrange, TX 78945	(979) 966-0906	
Fayette Co. Sheriff Department 1646 North Jefferson Lagrange, TX 78945	(979) 968-5856 (979) 968-6466	
West Point Fire Department 1646 North Jefferson Lagrange, TX 78945	(979) 968-5856 911	
West Point Police Department 1646 North Jefferson Lagrange, TX 78945	(979) 968-5856	
Gonzales County		
Gonzales Co. LEPC & Emergency Manager 414 St. Joseph St.,#200 Gonzales, TX 78629	(830) 672-2327 (830) 857-5489	
Gonzales Co. Sheriff Department 1713 East Sarah Dewitt Gonzales, TX 78629	(830) 672-6524 (830) 672-6525 (830) 672-6526	
Guadalupe County		

Guadalupe Co. LEPC 415 East Donegan Seguin, TX 78155	(830) 303-4188, Ext. 230 (830) 303- 8856 (830) 481-3039	
Guadalupe Co. Sheriff Department 2617 North Guadalupe Street Seguin, TX 78155	(830) 379-1224	
Hill County		
Hill Co. LEPC One N. Waco St. Hillsboro, TX 76645	(254) 582-4020	
Hill Co. Sheriff Department 406 Hall Street Hillsboro, TX 76645	(254) 582-5313	
Hillsboro Fire Department 110 West Franklin St Hillsboro, TX 76645	(254) 582- 2401 911 (254) 582-5873 (254) 582- 9155 (FAX)	
Hillsboro Police Department 303 North Waco Street Hillsboro, TX 76645	(254) 582-8406	
Johnson County		
Johnson Co. LEPC 114 W. Wardville St. Cleburne, TX 76031	(817) 645-0966	
Johnson Co. Sheriff Department 1800 Ridgemar Dr Cleburne, TX 76033	(817) 558-0024	

FIGURE 3.1-5 - EXTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

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		
Lee Co. LEPC 200 S. Main, #107 Giddings, TX 78942	(979) 542-3178	
Lee Co. Sheriff Department 424 South Main St	(979) 542-2800	

Giddings, TX 78942		
McLennan County		
Hillcrest Baptist Medical Center 100 Hillcrest Medical Blvd Waco, TX 76712	(254) 202-2000 (254) 202-1509	
McLennan Co. LEPC PO Box 1728 Waco, TX 76703	(254) 757-5049	
McLennan Co. Sheriff Department 901 Washington Ave Waco, Texas 76701	(254) 757-5000	
Waco Fire Department 1016 Columbus Avenue Waco, TX 76701	(254) 745-6050 911 (254) 750-1740	
Waco Police Department 721 North 4th Street Waco, TX 76706	(254) 750-7500	
Milam County		
Milam Co. LEPC PO Box 232 Milano, Texas 76556	979-491-2200	
Milam Co. Sheriff Department 512 North Jefferson Suite A Cameron, TX 76520	(254) 697-7033	
Robertson County		
Hearne Police Department 306 West 3rd Street Hearne, TX 77859	(979) 279-5333	
Hearne Volunteer Fire Department 301 W Second St Hearne, TX 77859	(979) 279-5333	
Robertson Co. LEPC P. O. Box 304 Bremond, Texas	254-745-7866	
Robertson Co. Sheriff Department 113 West Decherd Franklin, TX 77856	(979) 828-3299	
Tarrant County		
Columbia Plaza Medical Center 900 8th Avenue Ft. Worth, TX 76104	(817) 336-2100	

FIGURE 3.1-5 - EXTERNAL NOTIFICATIONS AND TELEPHONE NUMBERS

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		
Tarrant County		
Euless Fire Department 201 North Ector Euless, TX 76039	(817) 685-1600 911	
Fort Worth Fire Department 1000 Throckmorton Fort Worth, TX 76102	(817) 392-6800 911	
Fort Worth Police Department 350 West Belknap Fort Worth, TX 76102	(817) 335-4222 911	
Tarrant Co. LEPC 1000 Throckmorton Fort Worth, TX 76102	817-392-6170	
Tarrant Co. Sheriff Department 200 Taylor Street Fort Worth, TX 76102	(817) 884-1213 (817) 884-1315	
Texas Health Harris Methodist Hospital Hurst-Euless-Bedford 1600 Hospital Parkway Bedford, TX 76022	(817) 848-4000 (817) 848-4611 (ER)	
Travis County		
Austin Police Department 715 E 8th Street Austin, TX 78701	(512) 974-5000 (512) 974-2000	
Manor Fire Department 405 West Parson Street Manor, TX 78653	(512) 272-4995	
Travis Co. LEPC PO Box 1748 Austin, TX 78767	(512) 974-0472	
Travis Co. Sheriff Department 5555 Airport Boulevard Austin, TX 78751	(512)854-9770	
University Medical Center Brackenridge 601 East 15th Street Austin, TX 78701	(512) 324-7000	
Williamson County		

Williamson Co. LEPC 303 Martin Luther King Georgetown, TX 78626	(512) 943-1269	
Williamson Co. Sheriff Department 508 South Rock Street Georgetown, TX 78626	(512) 943-1300	

FIGURE 3.1-6 - OIL SPILL RESPONSE CONTRACTOR RESOURCES AND TELEPHONE NUMBERS

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
USCG Classified OSRO's		
Eagle SWS, (San Antonio) Cibolo, TX	(210) 566-8366 (210) 566-6247 (Fax) (877)-742-4215 (24 Hour)	
Garner Environmental Services, Inc. (Houston Operations) Deer Park, Texas	800-424-1716 (281) 930-1200 (281) 478-0296 (Fax)	
Miller Environmental Services, Inc. Corpus Christi, TX	(361) 289-9800 (24-hr) (361) 289-6363 (Fax)	
TAS Environmental Services, (Austin) Austin , TX	888--654-0111 (512) 990-9903 (512) 990-0033 (Fax)	
TAS Environmental Services, (Fort Worth) Fort Worth, TX	1-888-654-0111 (817) 535-7222 (817) 535-8187 (Fax)	
TAS Environmental Services, LP (San Antonio) San Antonio, Texas	888-654-0111 (210) 496-5310 (210) 496-5312 (Fax)	

FIGURE 3.1-7 - ADDITIONAL RESOURCES, NOTIFICATIONS, AND TELEPHONE NUMBERS

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Local Agencies		
Bastrop Co. LEPC 804 Pecan Street Bastrop, TX 78602	(512) 581-4022 (512) 303-1080	
Additional Services		
Cardno Entrix 5252 Westchester Suite 250 Houston, TX 77005	800-368-7511 (713) 666-6223 (Office)	
REISS Remediation 20 Greenway Plaza Houston, TX 77046 Attn. Michael Christopher	(713) 544-3016 (Office) (832) 264-3654 (Cell)	
Aviation Companies		
Guardian Air Patrol 1050 East 2nd Street #225 Edmond, OK 73034	405-708-1911	
Ethanol Pipeline Notification Contacts		
City of Arlington	(817) 459-6402 (phone) (817) 459-6410 (fax)	
City of Fort Worth	(817) 431-8229	
DART (Dallas Area Rapid Transit) Managed by: Harzog Inc. Doug Bourne Terry Bruner	972-399-3415 972-399-3406	
Laboratories		
AnalySys, Inc. 2209 North Padre Island Drive, Suite K Corpus Christi, TX 78408	(361) 289-6384 (361) 289-0875 (Fax)	
AnalySys, Inc. 3512 Montopolis Drive Austin, TX 78744	(512) 385-5886 (512) 385-7411 (Fax)	
TestAmerica Laboratories 1733 North Padre Island Drive Corpus Christi, TX 78408	(361) 289-2673 (361) 289-2471 (Fax)	
Neighboring Facilities		
FHR Austin Terminal 9011 Johnny Morris Rd. Austin, TX 78724	512-928-9226 (fax) 512.928.9229	
FHR Bastrop Terminal 115 Mount Olive Rd. Cedar Creek, TX 78612	512-332-2150 (fax) 512.321.1068	

FHR Euless Terminal 12550 Trinity Blvd. Euless, TX 76040	817-685-3472 (fax) 817.685.3490	
FHR Mustang Ridge Terminal 1165 East Lone Star Dr. Buda, TX 78610	512-398-1954 (fax) 512.398.3604	

FIGURE 3.1-7 - ADDITIONAL RESOURCES, NOTIFICATIONS, AND TELEPHONE NUMBERS, CONTINUED

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Neighboring Facilities		
FHR Waco Terminal 2017 Kendall Lane Waco, TX 76705	254-756-5442 (fax) 254.756.6062	
Radio Stations		
Clear Channel Radio 3601 South Congress Avenue Building F Austin, TX 78704	(512) 684-7300	
KONO Radio 8122 Datapoint Drive Suite 600 San Antonio, TX 78229	(210) 470-5666	
Radio Rentals		
Total Safety 6810 Leopard Corpus Christi, TX 78409	(361) 289-5995 (361) 289-6797 fax (361) 442-4224 Sales Rep	
Pipeline Repair Companies		
H & S Constructors, Inc. 1001 Flournoy Alice, TX 78332	(361) 668-8674 (361) 668-1865	
Spill Management Technical Advisors		
Bill Oswald Government Affairs (Austin TX) KCPS, LLC	(512) 476-4795 (office) (b) (6) (512)917-1429 (cell)	
Jim Andrew KPL Compliance Director	316-828-5511 (office) 316-250-5226 (cell)	

Koch Pipeline Company, L.P.	888-732-1764 (pager) 316-828-7887 (fax)	
Joel Davidson Compliance Audit and Assessment Koch Pipeline Company, L.P.	316-828-6604 (office) 316-206-3652 (cell) 316-828-7199 (fax)	
John Bale Environmental Manager-Terminals Flint Hills Resources, Pine Bend, LLC	651-233-3825 (Cell) 651-480-3966 (Office)	
Karlene Mitchell Program Coordinator Koch Pipeline Company, L.P.	(316) 828-4121 (office) (316) 200-3631 (cell)	
Katie Stavinoha Director, Public Affairs KCPS, LLC	(281) 363-7260 (office) (713) 459-7340 (cell) (316) 828-6997 (fax)	
Lance Baker Operations Manager- Terminals Flint Hills Resources, LP	817-685-3425 (office) 817-688-3969 (Cell)	
Tom Harwell Director, Compliance & Community, Public Affairs KCPS, LLC	316-828-7082 (office) (b) (6) 316-992-2750 (cell)	
Storage Tanks Rentals and RORO's		
Bakercorp 533 McBride Lane Corpus Christi, TX 78408- Corpus Christi 459 Cargill Road Kilgore,TX 75662- Kilgore 22345 IH 35 South New Braunfels, TX 78132- San Antonio 7818 South Cooper Street Arlington, TX 76001- Dallas	(361) 289-7708 (Corpus Christi) (903) 983-2916 (Kilgore) (830) 606-7788 (San Antonio) (817) 608-0576 (Dallas)	

FIGURE 3.1-7 - ADDITIONAL RESOURCES, NOTIFICATIONS, AND TELEPHONE NUMBERS, CONTINUED

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Storage Tanks Rentals and RORO's		
NES 1745 North Padre Island Drive Corpus Christi, TX 78408	(361) 289-5061	

Rain 4 Rent 8515 Up River Road Corpus Christi, Texas 78409 3744 Southeast Route 410 San Antonio, TX 78222- San Antonio 837 109th Street Arlington, TX 76011- Dallas 6401 Gulf Way Drive Grove, TX 77619- Port Arthur	(361) 241-2339 (Corpus Christi) (210) 648-4006 (San Antonio) (817) 652-1079 (Dallas) (409) 962-3121 (Port Arthur)	
Television Stations		
KDFI TV 400 North Griffin Street Dallas, TX 75202	(214) 720-4444	
KDFW TV 400 North Griffin Street Dallas, TX 75202	(214) 720-4444	
KENS TV 5400 Fredericksburg Road San Antonio, TX 78229	(210) 366-5000 (210) 366-5001	
KVUE TV 3201 Steck Avenue Austin, TX 78757	(512) 459-9442	
KWTX TV 6700 American Plaza Waco, TX 76712	(254) 776-1330 (254) 776-3242 (news room) (800) 749-5957 (news room toll-free)	
WOAI TV 1031 Navarro Street San Antonio, Texas 78205	(210) 226-4444	
Transport Companies		
Union Pacific Railroad 1400 Douglas Street Omaha, NE 68179 1-888-UPRRCOP (877-7267) to report hazardous materials releases, personal injuries, criminal activities, illegal dumping, or other environmental incidents. To report emergency grade crossing blockages or damage, please call 1-800-848-8715.	UP Main Number: 402-544-5000 UP Operator: 888-870-8777	
Utilities		
City of Waco Water Quality District	254-299-2489	

425 Franklin Avenue Waco, TX 76701		
Vacuum Truck Services		
Alamo Environmental San Antonio/Giddings, TX	(210) 404-1220 (979) 542-9400	
H & K Vacuum Trucks Inc 1010 Sodville Street Sinton, TX 78387 P.O. Box 1340 Sinton, TX 78387	(361) 364-4311 (361) 364-5920 (Fax) 800-456-9430	
Miller Environmental Services 600 Flato Road Corpus Christi, TX 78465	(361) 289-9800* (361) 289-6363 (Fax)	
Process Solutions 1218 Southern Minerals Road Corpus Christi, TX 78409	(361) 299-2898 (361) 289-7437 (Fax)	

FIGURE 3.1-7 - ADDITIONAL RESOURCES, NOTIFICATIONS, AND TELEPHONE NUMBERS, CONTINUED

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Vacuum Truck Services		
TAS Environmental 3929 E. California Pkwy Fort Worth, TX 76119	817-535-7222 817-532-2202	
Weather		
Austin Weather Report Trail Of Madrones Austin, TX 78746	(512) 451-2424	
NOAA Ops Center 1315 East West Highway Silver Spring, MD 20910	(301) 713-0600	
San Antonio (KENS TV 5) Weather Report 8122 Datapoint Drive Suite 500 San Antonio, TX 78229	(210) 470-5367	
Wildlife Rehabilitation		
Animal Rehabilitation Keep (ARK) 750 Channel View Drive Port Aransas, Texas 78373	361-749-6793	
Wildlife Rehabilitation and Education	(281) 731-8823	

7007 Katy Road Houston, TX 77024 (Federal License # PRT673173 & State License SPH090-090)	(Upper Coast Cell) (713) 861-9453 (b) (6) [redacted] (281) 992-8080 (Lower Coast)	
Wildlife Resonse Service, LLC PO BOX 842 Seabrook, TX 77586	713-705-5897 281-266-0054 (pager)	

FIGURE 3.1-8 - ADJOINING NEIGHBORS

KPL Pipeline Facilities	Entity / Business Name	Emergency Contact Name or Title	Emergency Contact Phone Number	Type of Entity	Special Instructions
Northern Zone					
DFW Delivery	Allied Aviation	Robert Austin-Maintenance Manager	972-574-2610 ext 232		
DFW Delivery	Allied Aviation	24 hour Control Desk	972-574-2615		
Austin Pump Station	Capital Metro		512-997-0010		
Fort Worth Delivery	Direct Fuels	24 hours shift supervisor on duty	817-825-2252		
Fort Worth Delivery	Direct Fuels	Gary Warrick-Operations Maintenance Manager	817-915-9874		
Fort Worth Delivery	Direct Fuels	Brock McIntire-Terminal Manager	817-422-1239		
Fort Worth Delivery	Direct Fuels	Brock McIntire-Terminal Manager	817-422-1239		
Gerdes Pump Station	Eastex Crude Company	Kevin Stark-Area Supervisor	903-767-6629 or 1-800-443-8580		800 number is answered 24/7.
Gerdes Pump Station	Eastex Crude Company	Chris Cheves-Alternate Supervisor	903-253-8009		
Rosanky Pump	Enterprise	Scott Wallace	979-777-		

Station			2643		
Southlake Delivery	Explorer	Pipeline Control Center	866-285-1116		
Southlake Delivery	Explorer	Rodney Burton	866-285-1116		
Southlake Delivery	Explorer	Jeramy Welch	214-532-9546		
Austin Pump Station	FHR - Austin Terminal	Kevin Coon	512-906-9467		or contact PCC in Wichita to contact the on call operator.
Waco Pump Station	FHR Waco Terminal	On Call Pager	254-808-0503		
Waco Pump Station	FHR Waco Terminal	Stephen Torcoletti-Lead Operator	254-652-7116		
Waco Pump Station	FHR Waco Terminal	Heath Collins	254-652-4475		
Waco Pump Station	FHR Waco Terminal	Ronnie Owen	254-366-4154		
Waco Pump Station	FHR Waco Terminal	Joe Suniga	254-315-7419		
Waco Pump Station	FHR-Waco Terminal	Tim Larsen-Terminal Manager	254-366-2441 cell (b) (6) [redacted]		
Fort Worth Delivery	Flint Hills Resources	24 hour operator on duty	817-685-3404		
Fort Worth Delivery	Flint Hills Resources - Terminals	Tom Heilman-Area Operations Manager	817-688-4981		
Fort Worth Delivery	Flint Hills Resources - Terminals	Lance Baker-Operations Manager	817-688-3969		
Austin Pump Station	Flint Hills Resources-Austin Terminal	Monte Smalls	512-922-7193		
Bastrop Terminal	Flint Hills Resources-Bastrop Terminal	Stuart Moffit-Terminal Operator	512-608-1466		
Bastrop	Flint Hills Resources-		512-592-		

Terminal	Bastrop Terminal	Matt Figueroa	9247		
Mustang Ridge Station	Flint Hills Resources-Mustang Ridge Terminal	Matt Figueroa	512-593-9247		Or call the PCC in Wichita for the on call person
Mustang Ridge Station	Flint Hills Resources-Mustang Ridge Terminal	Seth Spencer	512-497-8692		
Shaft Pump Station	GulfMark Trucking	Andy Gonzales	979-542-3832		Alt contact: Dale Dunaho 832-256-1140
Caldwell Pump Station	GulfMark Trucking	Andy Gonzales	979-542-3832		Alt contact: Dale Dunaho 832-256-1140
Harper Delivery Site	Kinder Morgan	Mark Barsalou	817-658-2785		
Harper Delivery Site	Kinder Morgan	Ariel Sanz	817-876-3961		
Harper Delivery Site	Kinder Morgan	Jason Bass	817-789-8741		
Rail Injection	Kinder Morgan	Mark Barsalou	817-658-2785		
Rail Injection	Kinder Morgan	Ariel Saez	817-876-3961		
Rail Injection	Kinder Morgan	Jason Bass	817-789-8741		
Fort Worth Delivery	Kinder Morgan	Mark Barsalou	817-658-2785		
Fort Worth Delivery	Kinder Morgan	Ariel Saenz-Site Supervisor	817-876-3961		
Fort Worth Delivery	Kinder Morgan	Jason Bass-Operator on Duty	817-789-8741		
Southlake Delivery	Magellan	Paul Cole	817-713-8742		
Southlake Delivery	Magellan	Danny Lempe	214-934-0867		
Southlake Delivery	Magellan	Charlie (area manager)	214-399-1566		
Gerdes	Mission	Derrick Jackson-	979-218-		

Pump Station	Petroleum	Field Supervisor	9869		
Gerdes Pump Station	Mission Petroleum	Dean Munson-Regional Manager	979-218-7767		
Caldwell Pump Station	Mission Trucking	Dean Munson	979-218-7767		Alt contact: Roger Praesel 979-218-5667
Shaft Pump Station	Mission Trucking	Dean Munson	979-218-7767		Alt Contact: Roger Praesel 979-218-5667
Southlake Delivery	NuStar	John	817-899-5344		
Southlake Delivery	NuStar	Ralph	817-247-2772		
Caldwell Pump Station	Plains Marketing	John Arnold	979-277-8180		
West Point Pump Station	Union Pacific Railroad		1-888-877-7267		Give physical address to operator.
Shaft Pump Station	United Methodist Church	Pam Beeler	979-272-8996		

SECTION 4 Last revised:

RESPONSE TEAM ORGANIZATION

© Technical Response Planning Corporation 2005

4.1 Description

4.2 Activation Procedures

4.3 Team Member Response Times

4.4 Incident Command System / Unified Command Structure

4.5 Qualified Individual (QI)

Figure 4.5-1 - Incident Management Team (IMT) Activation Procedure

Figure 4.5-2 - Incident Management Team (IMT) Organization Chart

4.6 Incident Management Team (IMT) Job Descriptions and Guidelines

4.1 DESCRIPTION

The Incident Management Team (IMT) has been created and organized to plan for and manage emergencies. The IMT is composed of Company personnel from offices within the Area. Additional personnel from outlying offices can be used (if needed). The IMT will develop strategies and priorities for a response, then will supervise contractors, handle safety and security matters, and will provide logistical support for contractor personnel. The IMT will handle all communications with the media and the public (**SECTION 7.2**). Job descriptions for each IMT member are provided in **SECTION 4.6**. The IMT will train by participating in exercises as noted in APPENDIX A.1.

4.2 ACTIVATION PROCEDURES

Activation of the IMT may be accomplished in stages. Initially, the First Responder assumes the role of Incident Commander (IC). During an incident, the initial IC may be able to respond without assistance from the IMT. If the situation requires more resources, the First Responder having assumed the role of the IC, may request additional personnel or management support from the IMT through the QI and the notification process. Depending on the situation, the QI may assume the role of Incident Commander. Having adopted the ICS/UCS protocols as the company response management system, the QI/IC can call out the other IMT members to expand or contract as needed by the requirements of the specific incident. The IMT activation procedure is provided in FIGURE 4.5-1.

4.3 TEAM MEMBER RESPONSE TIMES

See **FIGURE 3.1-4** for each team member's response time "EPA Facilities only".

4.4 INCIDENT COMMAND SYSTEM / UNIFIED COMMAND STRUCTURE

The Incident Command System (ICS) will be used by the Company IMT for managing emergencies. The IMT organization chart is provided in FIGURE 4.5-2. The organization can be expanded or contracted as necessary for any specific incident. Not all sections or jobs need to be established. The Incident Commander and General Staff will decide on the components to be activated.

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

- Federal On-Scene Coordinator (FOSC)
- State On-Scene Coordinator (SOSC)
- Company Incident Commander (may also be the QI)

These three people 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 integrated Incident Management Team. Refer to **SECTION 4.6** for detailed checklists of the IMT roles and responsibilities as well as organizational interfaces with external parties.

4.5 QUALIFIED INDIVIDUAL (QI)

Authority and Responsibilities

The Qualified Individual (QI) is an English-speaking representative available on a 24-hour basis and capable of arriving at the facility in a reasonable time.

As required by the Oil Pollution Act of 1990, the QI(s) identified have full authority to:

- Activate and contract with oil spill removal organization(s),
- Activate personnel and equipment maintained by the operator,
- Act as a liaison with the pre-designated Federal On-Scene Coordinator (OSC), and
- Obligate funds necessary to carry out required or directed response actions

Each QI identified is:

- Located in the United States,
- Familiar with the implementation of the response plan, and
- Trained in the responsibilities of the qualified individual under the response plan.

QI responsibilities include:

- Activate internal alarms and hazard communication systems to notify facility personnel;
- Notify response personnel, as needed;
- Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;
- Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;
- Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;
- Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion;
- Assess and implement prompt removal actions to contain and remove the substance released;
- Coordinate rescue and response actions as previously arranged with all response personnel;
- Use authority to immediately access company funding to initiate cleanup activities; and
- Direct cleanup activities until properly relieved of this responsibility.

4.5 QUALIFIED INDIVIDUAL (QI), CONTINUED

If off-site, the QI will coordinate with Incident Commander to ensure company response plan is implemented for the emergency response; ensure a response is occurring.

Once on-site, the QI may assume the responsibilities of the Incident Commander and assume overall command of the response operations as described in **SECTION 4.6**.

For further information on Qualified Individual's training, refer to **APPENDIX A.2**. Phone numbers for Qualified Individuals are provided in **FIGURES 1-2 and 3.1-4**.

For the purposes of 40 CFR 265 the QI is assumed to be the Emergency Coordinator.

FIGURE 4.5-1 - INCIDENT MANAGEMENT TEAM (IMT) ACTIVATION PROCEDURE

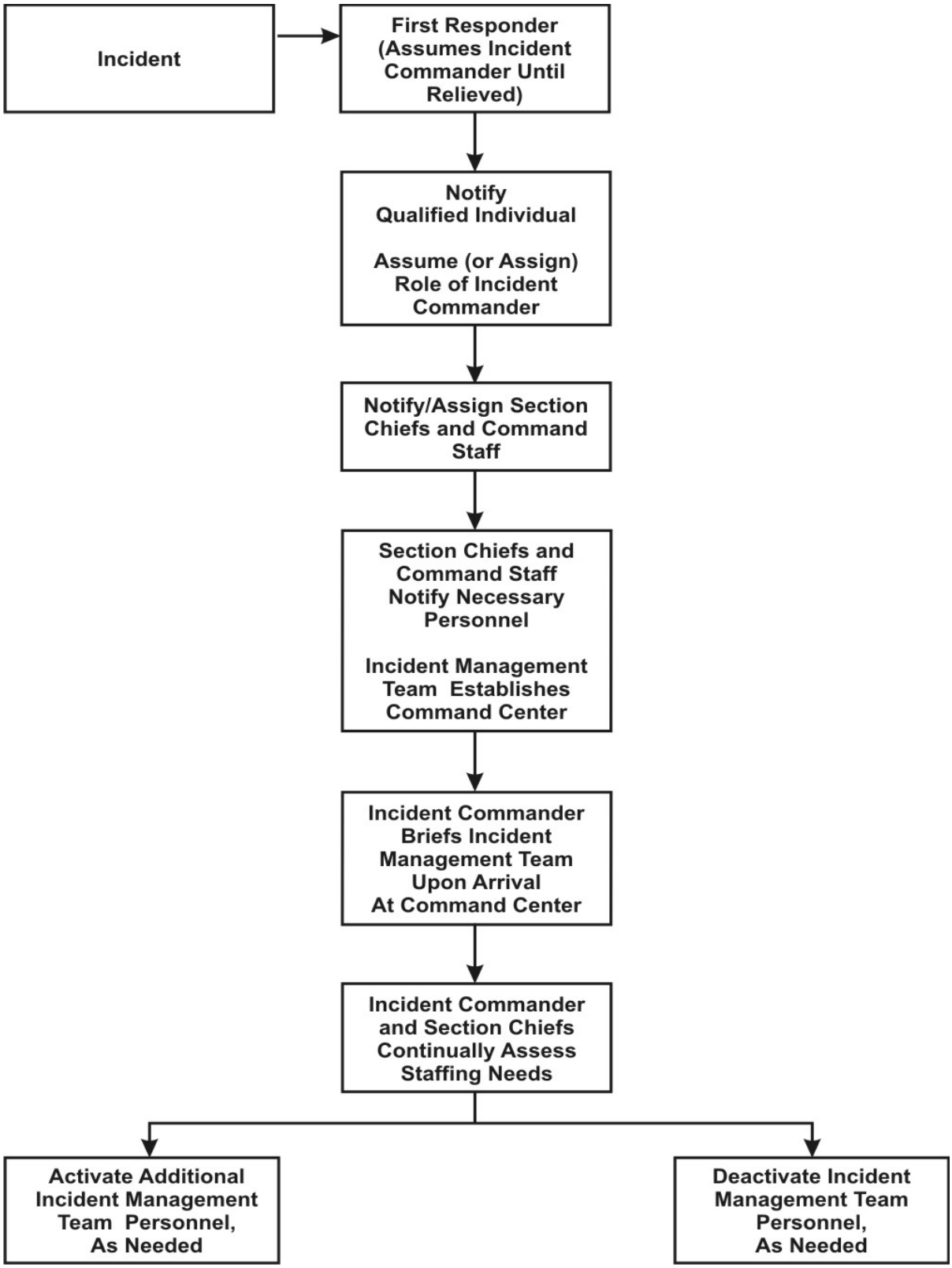
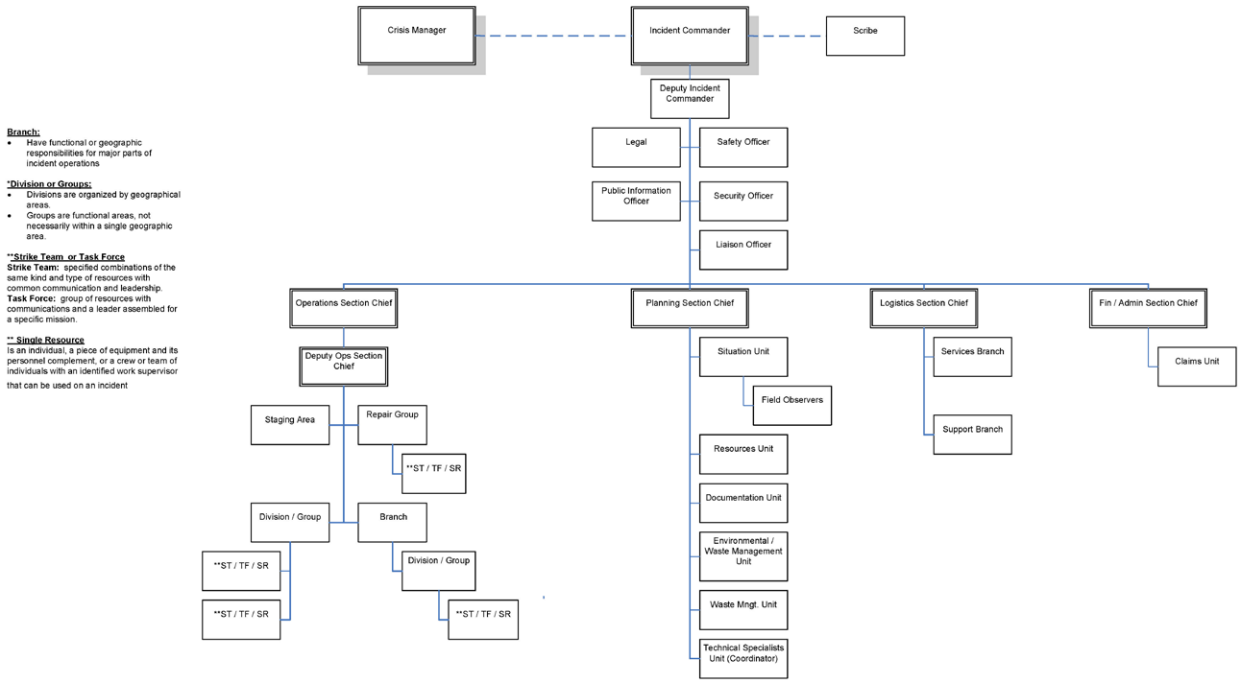


FIGURE 4.5-2 - INCIDENT MANAGEMENT TEAM (IMT) ORGANIZATION CHART

(Click here for larger view)



4.6 INCIDENT MANAGEMENT TEAM (IMT) JOB DESCRIPTIONS AND GUIDELINES

The following job descriptions and guidelines are intended to be used as a tool to assist IMT members in their particular positions within the Incident Command System (ICS).

- Common Responsibilities
- Incident Commander (IC)
- Safety Officer (SOFR)
- Public Information Officer (PIO)
- Security Manager (SECM)
- Liaison Officer (LNO)
- Operations Section Chief (OSC)
- Staging Area Manager (STAM)
- Branch Director (OPBD)
- Division Supervisor (DIVS)
- Planning Section Chief (PSC)
- Situation Unit Leader (SITL)
- Resource Unit Leader (RESL)
- Documentation Unit Leader (DOCL)
- Environmental Unit Leader (ENVL)
- Logistics Section Chief (LSC)
- Finance Section Chief (FSC)

COMMON RESPONSIBILITIES

The following responsibilities are applicable to all personnel in an ICS organization:

Responsibilities:

- ☐ Receive your job assignment (position, designation), including:
  - ☐ Brief overview of type and magnitude of incident.
  - ☐ Travel instructions including reporting location and reporting time.
  - ☐ Any special communications instructions (e.g. travel, radio frequency).
- ☐ Upon arrival at the incident, check in at the designated check-in location.
- ☐ Receive briefing from immediate supervisor and/or person you are relieving.
- ☐ Acquire work materials; ensure all equipment is operational prior to each work period.
- ☐ Participate in IMT meetings and briefings as appropriate.
- ☐ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the Safety Officer.
- ☐ Supervisors shall maintain accountability for their assigned personnel; Organize and brief subordinates.
- ☐ Know your assigned communication methods; Use clear text and ICS terminology (no codes) in all radio communications.
- ☐ Complete Incident ISC forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit.
- ☐ Brief shift replacement on ongoing operations when relieved at operational periods or rotation out.
- ☐ Respond to demobilization orders and return all assigned equipment to appropriate location.
- ☐ Complete Demobilization Check-out process before returning to home base.
- ☐ Participate in After-Action activities as directed.

INCIDENT COMMANDER (IC)

The IC's have responsibility for management of the incident. On many incidents, the command activity is carried out by a single IC.

The IC may have Deputy IC's, who may be from the same company or from an assisting mutual aid group. The Deputy IC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the IC, a Deputy IC/Chief of Staff may be assigned to manage the Command Staff.

The major responsibilities of the IC are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Obtain a briefing from the prior IC (201 Briefing).

- ☐ Set Incident Objectives, establish incident priorities and give general direction for managing the incident. (This is done in concert with Unified Command, if applicable)
- ☐ Establish an Incident Command Post.
- ☐ Brief Command Staff and Section Chiefs.
- ☐ Establish an appropriate response organization.
- ☐ Ensure planning meetings are scheduled as required or delegate to Planning Section Chief.
- ☐ Approve and authorize the implementation of an Incident Action Plan.
- ☐ Ensure that adequate safety measures are in place.
- ☐ Coordinate activity for Command and General Staff.
- ☐ Ensure adequate resources are being made available to the response effort.
- ☐ Approve requests for additional resources or for the demobilization of resources.
- ☐ Maintain clear and effective communications, plus ensure incident information is shared with key stakeholders on incident status.
- ☐ Approve the use of third party resources.
- ☐ Authorize release of information to the news media.
- ☐ Ensure Incident Status Summary (ICS 209) is completed and forwarded to appropriate individuals.
- ☐ Approve demobilization of the incident when appropriate.
- ☐ Maintain Unit Log (ICS 214).

SAFETY OFFICER (SOFR)

The SOFR function is to develop and recommend measures for assuring personnel safety and to assess and/or anticipate hazardous and unsafe situations. Only one primary SOFR will be assigned for each incident.

The SOFR may have assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities, such as potential hazardous material exposures, air monitoring operations, etc.

The major responsibilities of the SOFR are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Ensure hazardous situations associated with the incident are identified.
- ☐ Develop the Site Safety Plan and publish Site Safety Plan Summary (ICS 208) as required.
- ☐ Exercise emergency authority to stop and prevent unsafe acts.
- ☐ Develop the Work Safety Analysis Worksheet (ICS-215a) as required.
- ☐ Review the IAP for health and safety hazard mitigation strategies.

- ☐ Provide health and safety technical support for assigned responders.
- ☐ Participate in tactics and planning meetings, and other meetings and briefings as required.
- ☐ Ensure accidents that have occurred within the incident area are investigated.
- ☐ Review and approve the Medical Plan (ICS 206).
- ☐ Ensure that all applicable health and safety agency forms, reports and documents are completed prior to demobilization.
- ☐ Brief Command on safety issues and concerns.
- ☐ Have debriefing session with the IC prior to demobilization.
- ☐ Maintain Unit Log (ICS 214).

PUBLIC INFORMATION OFFICER (PIO)

The PIO 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 primary PIO will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdiction incidents. The PIO may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions.

The following are the major responsibilities of the PIO, which would generally apply on any incident.

The major responsibilities of the PIO are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Determine if there are any limits on information release ? consult with IC and Legal.
- ☐ Develop material for use in media briefings media releases and review with IC. Coordinate with Legal.
- ☐ Receive authorization from IC and conduct media briefings.
- ☐ Obtain media information that may be useful to incident planning.
- ☐ Arrange for tours and other interviews or briefings that may be required.
- ☐ Manage a Joint Information Center (JIC) if established.
- ☐ Brief Command on PIO issues and concerns.
- ☐ Maintain Unit Log (ICS 214).

SECURITY MANAGER (SECM)

The SECM is responsible for providing safeguards needed to prevent unauthorized access and protect personnel and property from loss or damage.

The major responsibilities of the SECM are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Establish contacts with local/state/federal law enforcement agencies, as required. NOTE: The extent of this interaction will change extensively if the cause of the incident is a security breach and the role may be elevated to a command staff position.
- ☐ Request required personnel support to accomplish work assignments.
- ☐ Ensure that support personnel are qualified to manage assigned responsibilities.
- ☐ Develop Security Plan and adjust as needed.
- ☐ Coordinate security activities with appropriate incident personnel.
- ☐ Control access to response site.
- ☐ Prevent theft of property and maintain order at the response site.
- ☐ Maintain Unit Log (ICS 214).

LIAISON OFFICER (LNO)

Incidents that are multijurisdictional, or have several agencies involved, may require the establishment of the LNO position on the Command Staff. Only one primary LNO will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdiction incidents.

The LNO may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The LNO is assigned to the incident to be the contact for assisting and/or cooperating Agency Representatives.

The major responsibilities of the LNO are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Be a contact point for Agency Representatives ? maintain a list, including name and contact information.
- ☐ Assist in establishing and coordinating interagency contacts.
- ☐ Maintain list of Agency Representatives that are on site each day.
- ☐ Brief Incident Commander on agency issues and concerns.
- ☐ Keep agencies supporting the incident aware of incident status (NOTE: This applies even if agency is not on site).
- ☐ Coordinate activities of visiting dignitaries.
- ☐ Participate in planning meetings, providing limitations and capability of assisting agency resources.
- ☐ Coordinate response resource needs of Agency Representatives for incident

investigation activities with the Operations Section Chief.

- ☐ Maintain Unit Log (ICS 214).

OPERATIONS SECTION CHIEF (OSC)

The OSC, a member of the General Staff, is responsible for the management of tactical operations applicable to the primary objectives.

The OSC activates and supervises operational elements in accordance with the Incident Action Plan (IAP) and directs its execution. The OSC directs the preparation of operational plans, requests or releases resources, monitors operational progress, and makes expedient changes to the IAP as necessary, and reports such to the IC.

The OSC is responsible for the major duties described for each Branch, Division/Group, Strike Team/Task Force or Single Resources Unit within the Operations Section. The OSC may assign Deputy OSC's, to supervise on-scene operations (major responsibilities (d) through (k) listed below). The Deputy OSC must be capable to takeover as the OSC, if the situation warrants.

The major responsibilities of the OSC are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Obtain briefing from IC.
- ☐ Request sufficient personnel for supervisory staffing of each Branch, Division/Group, Strike Team/Task Force or Single Resources Unit identified within the Operations Section.
- ☐ Initially, develop work assignments and allocate tactical resources based on strategic requirements.
- ☐ Coordinate planned activities with the SOFR to ensure compliance with safety practices.
- ☐ Subdivide work areas into manageable units.
- ☐ Supervise operations field personnel or assign to Deputy OSC.
- ☐ Coordinate and consult with the PSC, SOFR technical specialists, modeling scenarios, trajectories, etc., on selection of appropriate strategies and tactics to accomplish objectives.
- ☐ Participate in the planning process and the development of the tactical portions of the IAP.
- ☐ Convert operational incident objectives into strategic and tactical options. These options may be documented on a Work Analysis Matrix (ICS-234).
- ☐ Identify kind and number of resources required to support Incident Strategies; develop operations portion of the IAP and complete Operational Planning Worksheet (ICS 215).
- ☐ Participate in the development of the Incident Action Plan Safety Analysis (ICS 215a).
- ☐ Continually communicate, coordinate and share information with General and Command Staff throughout the Incident Response (Planning Cycle).

- ☐ Participate in incident planning meetings and briefings as required.
- ☐ Implement the IAP for the Operations Section.
- ☐ Evaluate on-scene operations and make adjustments to Operational organization, strategies, tactics, and resources, as necessary.
- ☐ Evaluate and monitor current situation for use in next operational period planning; coordinate information with Situation Unit Leader.

OPERATIONS SECTION CHIEF (OSC), CONTINUED

Responsibilities, Continued:

- ☐ Ensure the Resources Unit is advised of changes in the status of resources assigned to the section.
- ☐ Assist with development of long-range strategic, contingency, and demobilization plans.
- ☐ Receive and implement applicable portions of the incident Demobilization Plan.
- ☐ Participate in operational briefings to IMT members.
- ☐ Maintain Unit Log (ICS 214).

STAGING AREA MANAGER (STAM)

The STAM is under the direction of the Operations Section Chief and is responsible for managing all activities within a Staging Area.

The major responsibilities of the STAM are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Proceed to Staging Area.
- ☐ Determine any support needs for equipment, materials, supplies, feeding, sanitation and security for staging area.
- ☐ Establish Staging Area layout and post areas for identification and traffic control.
- ☐ Establish check-in function as appropriate.
- ☐ Maintain Staging Area in orderly condition.
- ☐ Ensure security of staged resources.
- ☐ Obtain and issue receipts for equipment and other supplies distributed and received at Staging Area.
- ☐ Request maintenance service for equipment at Staging Area as appropriate.
- ☐ Respond to request for resource assignments.
- ☐ Advise the OSC when reserve levels reach minimums.

- ☐ Maintain and provide status to Resource Unit of all resources in Staging Area, especially when being relieved of position.
- ☐ Demobilize Staging Area in accordance with the Incident Demobilization Plan.
- ☐ Participate in meetings and briefings as required,
- ☐ Maintain Unit Log (ICS 214).

BRANCH DIRECTOR (OPBD)

The OPBD's when activated, are under the direction of the Operations Section Chief and are responsible for the implementation portion of the Incident Action Plan appropriate to the Branches.

The major responsibilities of the OPBD are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Identify Divisions, Groups, and resources assigned to the Branch.
- ☐ Implement IAP for the Branch; ensure that Division and/or Group Supervisors (DIVS) assigned to the Branch have a copy of the relevant portions IAP.
- ☐ Review Division/Group Assignment Lists (ICS 204) for Divisions/Groups within the Branch. Modify assignments where necessary, based on effectiveness of current operation plan.
- ☐ Report to OSC when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- ☐ Resolve logistic problems reported by subordinates.
- ☐ Attend planning meetings as requested by the OSC.
- ☐ Ensure through chain of command that Resources Unit is advised of changes in the status of resources assigned to the Branch.
- ☐ Demobilize in accordance with the Incident Demobilization Plan.
- ☐ Participate in meetings and briefings as required.
- ☐ Debrief with OSC and/or as directed at the end of each shift.
- ☐ Maintain Unit Log (ICS 214).

DIVISION SUPERVISOR (DIVS)

The DIVS reports to the OSC (or OPBD when activated). The DIVS is responsible for the implementation of the assigned portion of the IAP, assignment of resources within the Division/Group, and reporting on the progress of control operations and status of resources within the Division/Group.

The major responsibilities of the DIVS are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Receive briefing from Operations Section Chief and obtain briefing from person relieving.
- ☐ Provide the IAP to Division/Group members, as needed.
- ☐ Review Division/Group assigned tasks and incident activities with subordinates and Identify resources assigned to the Division/Group.
- ☐ Implement IAP for Division/Group.
- ☐ Supervise Division/Group resources and make changes as appropriate.
- ☐ Ensure through chain of command that Resources Unit is advised of all changes in the status of resources assigned to the Division/Group.
- ☐ Coordinate activities with adjacent Division/Group.
- ☐ Determine need for assistance on assigned tasks.
- ☐ Submit situation and resources status information to the Branch Director or the OSC as directed.
- ☐ Report hazardous situations, special occurrences, or significant events, e.g., accidents, sickness, discovery of unanticipated sensitive resources, to the Safety Officer.
- ☐ Ensure that assigned personnel and equipment get to and from assignments in a timely and orderly manner.
- ☐ Resolve logistics problems within the Division/Group.
- ☐ Participate in the development of Branch plans for the next operational period, as requested.
- ☐ Consider demobilization well in advance.
- ☐ Debrief as directed at the end of each shift.
- ☐ Maintain Unit Log (ICS 214).

PLANNING SECTION CHIEF (PSC)

The PSC, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of incident information and maintaining status of assigned resources.

The PSC must obtain Information to:

1. Understand the current situation;
2. Predict the probable course of incident events;
3. Prepare strategies, plans and alternative strategies and plans for the incident; and
4. Submit required incident status reports.

The PSC is responsible for the major duties described for each Unit within the Planning Section. The PSC may have Deputy PSC's, The Deputy PSC must be capable to takeover as the PSC, if the situation warrants.

The major duties of the PSC are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Obtain briefing from IC.
- ☐ Assist the OSC in the development of response strategies.
- ☐ Determine need for any specialized resources in support of the incident.
- ☐ Supervise preparation of the IAP.
- ☐ Facilitate the Operational Period Planning Cycle meetings and briefings (ICS 230).
- ☐ Continually communicate, coordinate and share information with General and Command Staff throughout the Incident Response (Planning Cycle).
- ☐ Participate in incident planning meetings and briefings as required.
- ☐ Keep Incident Management Team apprised of any significant changes in incident status.
- ☐ Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation, Environmental, and Waste Management).
- ☐ Establish special information collection activities as necessary (e.g., maps, weather, environmental, toxics, etc.).
- ☐ Assemble information on alternative strategies (in-situ burn, bioremediation, etc).
- ☐ Incorporate documents and plans (e.g., ICS 202 Incident Objectives, ICS 232 Resources at Risk, Medical, Communications, Security and Site Safety) into the IAP.
- ☐ Incorporate other incident technical and supporting plans (e.g., salvage, integrity, volume estimation) into IAP.
- ☐ Oversee preparation, distribution and implementation of the Demobilization Plan.
- ☐ Maintain Unit Log (ICS 214).

SITUATION UNIT LEADER (SITL)

The Situation Unit Leader is responsible for collecting, processing and organizing information relating to the growth and/or mitigation activities taking place in response to the incident. The SITL reports to the PSC and supervises Field Observers, Data Management Specialists, GIS Specialists, Display Processors, and other Technical Specialists (e.g. Weather Observers, Report Writer) as needed.

The major responsibilities of the SITL are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Verify response activities and status of work locations (may be assigned to a field observer if needed),
  - ☐ Progress of operations resources.
  - ☐ Locations of trouble spots or hazards
  - ☐ Conditions likely to impact response activities (e.g. weather, road

conditions, and access routes);

- ☐ Incident perimeter changes

- ☐ Collect, compile, and manage overall incident data, establish data quality objectives, implement the QA/QC process for incident data.
- ☐ Prepare, display, or disseminate resource and situation status information as required, including special requests.
  - ☐ Number, types and locations of displays required
  - ☐ Information posted in the Incident displays
  - ☐ Time limits / update frequency for information on the displays
- ☐ Develop and maintain master chart(s)/map(s) of the incident and provide charts/maps in the common area of the Incident Command Post as needed.
- ☐ Prepare the Incident Status Summary Form (ICS 209-CG).
- ☐ Coordinate photographic services; plus weather, tidal and current information, as needed.
- ☐ Coordinate situation briefings at meetings and briefings as required by the PSC.
- ☐ Maintain Unit Log (ICS 214).

RESOURCE UNIT LEADER (RESL)

The RESL is responsible for maintaining status of tactical resources and personnel at an incident. This is accomplished by maintaining a status-keeping system indicating current location and status of these resources.

The major responsibilities of the RESL are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Establish the check-in/check-out function of tactical resources/personnel at incident locations (note this is not security check-in)
- ☐ Prepare Organizational Assignment List (ICS 203) & Organizational Chart (ISC 207).
- ☐ Prepare appropriate parts of Division Assignment Lists (ICS 204).
- ☐ Maintain and post current status and location of tactical resources.
- ☐ Attend meetings and briefings as required by PSC.
- ☐ Maintain Unit Log (ICS 214).

DOCUMENTATION UNIT LEADER (DOCL)

The DOCL is responsible for the maintenance of accurate, up-to-date incident files. The DOCL shall ensure each section is maintaining and providing appropriate documents. The Documentation Unit will ensure appropriate storage incident files.

The major responsibilities of the DOCL are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Organize incident files.
- ☐ Assist in preparation of documents as appropriate.
- ☐ Arrange for copying and other printing services as needed.
- ☐ Review records for accuracy and completeness ? provide feedback, when appropriate, to document preparers.
- ☐ Provide incident documentation as requested.
- ☐ Maintain Unit Log (ICS 214).

ENVIRONMENTAL UNIT LEADER (ENVL)

The ENVL is responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance and environmental monitoring and permitting.

The major responsibilities of the ENVL are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Identify sensitive areas including historical/cultural resources to ensure protection of wildlife and other resources (consult with local, state and federal natural resource trustees as appropriate). See ICS 232.
- ☐ Monitor the impact of response actions and make appropriate recommendations to protect resources at risk.
- ☐ Develop environmental cleanup and assessment plans and evaluate alternatives.
- ☐ Request technical support to accomplish work assignments, if needed.
- ☐ Develop disposal plan (consider sampling protocols, transportation regulations, etc.) and adjust as needed.
- ☐ Assign the Disposal Group Supervisor to ensure waste management plan is implemented appropriately if needed.
- ☐ Attend meetings and briefings as required by PSC.
- ☐ Maintain Unit Log (ICS 214).

LOGISTICS SECTION CHIEF (LSC)

The LSC, a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the IAP and activates and supervises the Branches and Units within the

Logistics Section.

The LSC is responsible for the major duties described for each Branch and Unit within the Logistic Section. The LSC may have Deputy LSC's. The Deputy LSC must be capable to takeover as the OSC, if the situation warrants.

The major responsibilities of the LSC are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Obtain briefing from IC.
- ☐ Determine and supply immediate incident resource and facility needs.
- ☐ Identify Branch Directors and Unit Leaders, assigning work locations and preliminary work tasks to the Logistic Section personnel.
- ☐ Assemble and brief Logistics Branch Directors and Unit Leaders.
- ☐ Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel.
- ☐ Set up an ordering process as appropriate to support the incident.
- ☐ In conjunction with IC, develop and advise Sections of the Incident Management Team resource approval and requesting process.
- ☐ Continually communicate, coordinate and share information with General and Command Staff throughout the Incident Response (Planning Cycle).
- ☐ Participate in incident planning meetings and briefings as required.
- ☐ Review proposed tactics for upcoming operational period for ability to provide resources and logistical support.
- ☐ Advise IC and other Section Chiefs on resource availability to support incident needs.
- ☐ Ensure the Communications Plan (ICS 205); Medical Plan (ICS 206), and Traffic Plan are created for the IAP.
- ☐ Identify long-term service and support requirements for planned and expected operations.
- ☐ Identify resource needs for incident contingencies.
- ☐ Track resource effectiveness and make necessary adjustments.
- ☐ Set up Release Process for demobilization plan.
- ☐ Ensure the general welfare and safety of Logistics Section personnel.
- ☐ Maintain Unit Log (ICS 214).

FINANCE/ADMINISTRATION SECTION CHIEF (FSC)

The FSC, a member of the General Staff, is responsible for financial, administrative and cost analysis aspects of the incident and for supervising members of the Finance/Admin Section.

The FSC may have Deputy FSC's. The Deputy FSC must meet the same qualification

requirements as the person for whom they work, as they must be ready to take over that position at any time.

The major responsibilities of the FSC are:

Responsibilities:

- ☐ Review Common Responsibilities.
- ☐ Participate in incident planning meetings and briefings as required.
- ☐ Manage financial aspects of an incident.
- ☐ Provide financial and cost analysis information as requested.
- ☐ Gather pertinent information from briefings.
- ☐ Develop an operating plan for the Finance/ Admin Section; fill supply and support needs.
- ☐ Meet with other Section Chiefs, as needed.
- ☐ Provide financial input to demobilization planning.
- ☐ Ensure that obligation documents initiated at the incident are properly prepared and completed.
- ☐ Brief personnel on incident-related financial issues needing attention or follow-up prior to leaving incident.
- ☐ Develop recommended list of Section resources to be demobilized and initial recommendation for release when appropriate.
- ☐ Receive and implement applicable portions of the incident Demobilization Plan.
- ☐ Establish a process or activate a Claims Group to accept claim submission as a result of incident.
- ☐ Maintain Unit Log (ICS 214).

SECTION 5 Last revised: February 2006

INCIDENT PLANNING

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5.1 Documentation Procedures

5.2 Incident Action Plan (IAP) Process and Meetings

Figure 5.2-1 Operational Period Planning Cycle

5.2.1 Incident Occurs / Notifications

5.2.2 Initial Response and Assessment

5.2.3 Unified Command Objectives Meeting

5.2.4 Tactics Meeting

5.2.5 Planning Meeting

5.2.6 Incident Action Plan (IAP) Preparation and Approval

5.2.7 Operations Briefing

5.2.8 Assess Progress

5.2.9 Initial Unified Command Meeting

5.2.10 Command Staff Meeting

5.2.11 Command General Staff Breakfast/Supper

5.2.12 Business Management Meeting

5.2.13 Agency Representative Meeting

5.2.14 News Briefing

SECTION 5 Last revised: January 2005

INCIDENT PLANNING, CONTINUED

5.3 ICS Forms

5.3.1 Incident Briefing ICS 201-OS

5.3.2 Incident Action Plan (IAP) Cover Sheet

5.3.3 Incident Objectives ICS 202-OS

5.3.4 Organization Assignment List ICS 203-OS

5.3.5 Assignment List ICS 204-OS

5.3.6 Communications Plan ICS 205-OS

5.3.7 Medical Plan ICS 206-OS

5.3.8 Incident Status Summary ICS 209-OS

5.3.9 Unit Log ICS 214-OS

5.3.10 Individual Log ICS 214a-OS

5.4 Site Safety and Health Plan

5.4.1 Safety Introduction and Overview

5.4.2 Initial Site Safety and Health Plan

5.4.3 Site Safety and Health Plan

5.5 Decontamination Plan

5.6 Disposal Plan

5.7 Incident Security Plan

5.8 Demobilization Plan

5.1 DOCUMENTATION PROCEDURES

Documentation of an emergency response provides a historical record, keeps management informed, serves as a legal instrument, and is a means to account for the cleanup activities.

Documentation should begin immediately upon discovery of incident and continue until termination of operations. Documentation may include the following:

- Description of Incident (origin and characteristics)
- MSDS
- Notifications (external and internal)
- Sampling surveys
- Photographs
- Climatological data
- Labor and equipment accounting
- Copies of logs, contracts, contacts, and plans prepared for incident

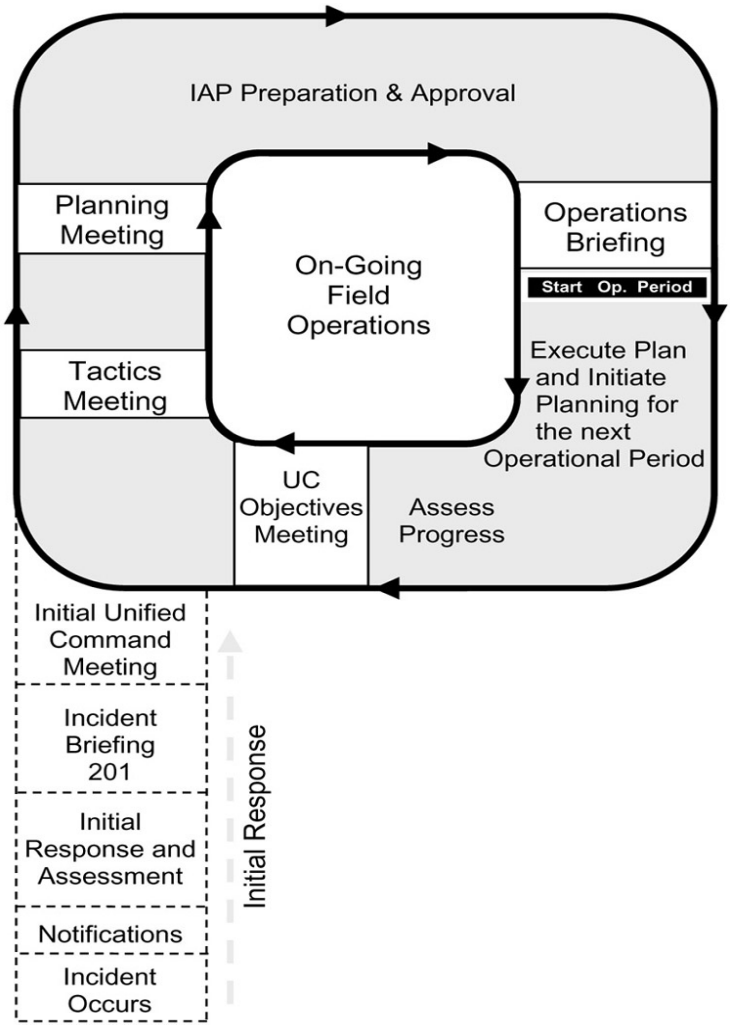
5.2 INCIDENT ACTION PLAN (IAP) PROCESS AND MEETINGS

The period of INITIAL RESPONSE AND ASSESSMENT occurs in most incidents. Short-term responses (small in scope and/or duration, e.g., few resources working one operational period) can often be coordinated by the initial responder utilizing procedures and forms described in this Plan (suggested ICS Form 201, Incident Briefing).

Longer-term, more complex responses, will likely require a dedicated Incident Commander (IC) / Unified Command (UC) who will assign members of the Command and General Staff as needed (e.g., Planning Section Chief (PSC) arranges for transition into the OPERATIONAL PERIOD PLANNING CYCLE). Certain meetings, briefings, and information-gathering during the Cycle lead to the Incident Action Plan (IAP) that guides operations of the next operational period. The IC/UC specifies objectives and the operational periods (e.g., 12-hour shifts, sunrise to sunset, 24-hour shifts, etc.) to engage the cleanup activities.

SPECIAL PURPOSE meetings are most applicable to larger incidents requiring an OPERATIONAL PERIOD PLANNING CYCLE, but may have utility during INITIAL RESPONSE AND ASSESSMENT. The UNIFIED COMMAND MEETING and other special purpose meetings are briefly noted.

FIGURE 5.2-1 OPERATIONAL PERIOD PLANNING CYCLE



5.2.1 Incident Occurs / Notifications

When an incident occurs, an initial assessment and response actions will begin (**FIGURE 3.1-2**, Incident Report Form). Notifications will be made internally and to the appropriate federal, state, and local agencies (**FIGURE 3.1-5**).

5.2.2 Initial Response and Assessment

INCIDENT BRIEFING

During the transfer of command process, a briefing provides the incoming IC/UC with basic information regarding the incident situation and the resources allotted to the incident (Incident Briefing ICS 201-OS). This briefing is the beginning of the Incident Action Plan (IAP) for the initial response and remains in force and continues to develop until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to Command and General Staff, as well as for needed assessment briefings for the staff.

When: New IC/UC; staff briefing, as required
Briefer: Current IC/UC
Attendees: Prospective IC/UC; Command, and General Staff, as required
Agenda: Using ICS 201 as an outline, included:

1. Situation (note territory, exposures, safety concerns, etc; use map/charts).
2. Objectives and priorities.
3. Strategies and tactics.
4. Current organization.
5. Resource assignments.
6. Resources enroute and/or ordered.
7. Facilities established.

OPERATIONAL PERIOD PLANNING CYCLE
(Events most related to assembling IAP)

5.2.3 Unified Command Objectives Meeting

The IC/UC will review/identify and prioritize objectives for the next operational period (Incident Objectives ICS 202-OS). Objectives from the previous operational period are reviewed and any new objectives are identified.

When: Prior to Tactics Meeting
Facilitator: UC Member
Attendees: UC Members; Command and General Staff, as appropriate
Agenda:

1. Review/identify objectives for the next operational period (clearly stated and attainable with the resources available, yet flexible enough to allow Operations Section Chief to choose tactics).
2. Review any open agenda items from initial/previous meetings.

5.2.4 Tactics Meeting

This meeting creates the blueprint for tactical deployment during the next operational period. In preparation for the Tactics Meeting, the Planning Section Chief and Operations Section Chief review the current IAP and situation status information, as provided through the Situation Unit, to assess work progress against IAP objectives. The Operations Section Chief/Planning Section Chief will jointly develop primary and alternate strategies to meet objectives for consideration at the next Planning Meeting.

When: Prior to Planning Meeting
Facilitator: Planning Section Chief
Attendees: Planning Section Chief, Operations Section Chief, Logistics Section Chief, Resources Unit Leader, Situation Unit Leader, and Environmental Unit Leader
Agenda:

1. Review the objectives for the next operational period.
2. Develop strategies (primary and alternative).
3. May prepare a draft of ICS 215 to identify resources that should be ordered through Logistics.

5.2.5 Planning Meeting

This meeting defines incident objectives, strategies, and tactics and identifies resource needs for the next operational period. This meeting fine-tunes objectives and priorities, identifies and

solves problems, and defines work assignments and responsibilities (suggested ICS Form 215, Operations Planning Worksheet). Meeting preparations include conducting a Tactics Meeting. Displays in the meeting room may include Objectives (ICS 202) for the next period; large sketch maps or charts clearly dated and timed; poster-size Operational Planning Worksheet (ICS 215); current resource inventory prepared by Resources Unit; and current situation status displays prepared by Situation Unit. After the meeting, the Logistics Section Chief prepares the off-incident tactical and logistical resource orders which are used by Planning Section Chief to develop IAP assignment lists (suggested ICS Form 215).

When: After the Tactics Meeting
Facilitator: Planning Section Chief
Attendees: Determined by IC/UC, generally IC/UC, Command Staff, General Staff, Air Operations Section Chief, Resources Unit Leader, Situation Unit Leader, Environmental Unit Leader, and Technical Specialists, as required
Agenda: Primary Responsibility:

5.2.5 Planning Meeting, Continued

1. State incident objectives and policy issues. IC/UC
2. Briefing of situation, critical and sensitive areas, weather/sea forecast, resource status/availability. Planning Section Chief w/Situation Unit Leader, Resources Unit Leader
3. State primary and alternative strategies to meet objectives. Operations Section Chief w/Planning Section Chief, Logistics Section Chief
4. Designate Branch, Division, Group boundaries and functions, as appropriate; use maps and ICS 215. Operations Section Chief
5. Specify tactics for each Division, note limitations. Operations Section Chief, Situation Unit Leader assist
6. Specify resources needed by Divisions/Groups. Operations Section Chief, w/Planning Section Chief, Logistics Section Chief
7. Specify operations facilities and reporting locations (plot on map). Operations Section Chief, Logistics Section Chief assist
8. Develop resources, support, and overhead order(s). Planning Section Chief, Logistics Section Chief
9. Consider support issues and agree on plans: communications, traffic, safety, medical, etc. Logistics Section Chief, Planning Section Chief assist
10. Assisting or cooperating agency and stakeholder group considerations regarding Incident Action Plan. Liaison Officer
11. Safety considerations regarding Incident Action Plan. Safety Officer
12. News media/public considerations regarding Incident Action Plan. Information Officer
13. Finalize, approve Incident Action Plan for next operational period. IC/UC

5.2.6 Incident Action Plan (IAP) Preparation and Approval

Immediately following the Planning Meeting, the attendees prepare their assignments for the IAP to meet the Planning Section Chief deadline for assembling the IAP components. The deadline will be early enough to permit timely IC/UC approval and duplication of sufficient copies for the Operations Briefing and for overheads.

When: Immediately following Planning Meeting, Planning Section Chief assigns deadline
Facilitator: Planning Section Chief

Common Components:		Responsible to Prepare
1.	Incident Objectives (ICS 202)	[Resources Unit Leader]
2.	Organization List (ICS 203)	[Resources Unit Leader]
3.	Assignment List (ICS 204)	[Resources Unit Leader/Planning Section Chief]
4.	Communications Plan (ICS 205)	[Communications Unit Leader]
5.	Medical Plan (ICS 205)	[Medical Unit Leader/Safety Officer]
6.	Incident Map	[Situation Unit Leader]

Optional Components (use as pertinent):

Optional Components (use as pertinent):		Responsible to Prepare
1.	Air Operations Summary (ICS 220)	[Air Operations Branch Director]
2.	Traffic Plan	[Ground Support Unit Leader]
3.	Demobilization Plan	[Demobilization Unit Leader]

5.2.7 Operations Briefing

This meeting conveys the IAP for the oncoming shift to the response organization. After this meeting, off-going field supervisors should be interviewed by their reliefs and by Operations Section Chief in order to further confirm or adjust the course of the new shift's IAP. Shifts in tactics may be made by the operations section supervisors. Similarly, a supervisor may reallocate resources within a Division or Group to adapt to changing conditions.

When: About an hour prior to each shift
Facilitator: Planning Section Chief
Attendees: IC/UC, Command Staff, General Staff, Branch Directors, Division/Group Supervisors, Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate

Agenda:		Responsible to Present
1.	Review of IC/UC Objectives, changes to IAP.	[Planning Section Chief]
2.	Current response actions and last shift's accomplishments.	[Operations Section Chief]
3.	Weather and sea conditions forecast.	[Situation Unit Leader]
4.	Division/Group and Air Operations assignment.	[Operations Section Chief]
5.	Trajectory analysis.	[Situation Unit Leader]
6.	Transport, communications, supply updates.	[Logistics Section Chief]
7.	Safety message.	[Safety Officer]
8.	Financial report (e.g. Claims Number set-up).	[Finance/Administration Section Chief]
9.	News Media report.	[Information Officer]

10.	Assisting/cooperating organization/agency reports of concern.	[Liaison Officer]
11.	Incident Action Plan endorsement and motivational remarks.	[IC/UC]

5.2.8 Assess Progress

The Operations and Planning Sections will review the incident response progress and make recommendations to the IC/UC in preparation for reviewing/identifying objectives for the next operational period. This feedback/information is gathered from various sources including Field Observers, responder debriefs, stakeholders, etc.

SPECIAL PURPOSE MEETINGS

5.2.9 Initial Unified Command Meeting

Provides UC officials with an opportunity to discuss and concur on important issues prior to joint incident action planning. The meeting should be brief and important points should be documented. Prior to the meeting, parties should review and prepare to address the agenda items. Planning Meeting participants will use the results of this meeting to guide the response efforts.

5.2.9 Initial Unified Command Meeting, Continued

When: When UC is formed, prior to the first operational period Planning Meeting
Facilitator: UC member
Attendees: Only ICs who will comprise UC

Agenda:

1. Identify jurisdictional priorities and objectives.
2. Present jurisdictional limitations, concerns, restrictions.
3. Develop collective set of incident objectives.
4. Establish and agree on acceptable priorities.
5. Adopt an overall strategy to accomplish objectives.
6. Agree on basic organizational structure and size.
7. Designate the best-qualified and acceptable Operations Section Chief.
8. Agree on General Staff personnel designations and planning, logistical, and finance agreements and procedures.
9. Agree on resource ordering procedures.
10. Agree on cost-sharing procedures.
11. Agree on informational matters.
12. Designate a Unified Command spokesperson.

5.2.10 Command Staff Meeting

The purpose of this meeting is to coordinate Command Staff functions responsibilities, and objectives. It is scheduled as necessary by the IC/UC. Command Staff (IC/UC, Safety Officer, Liaison Officer, and the Information Officer) attend.

5.2.11 Command and General Staff Breakfast/Supper

An opportunity for the Command (IC/UC, Safety Officer, Liaison Officer, Information Officer) and General Staff (Operations Section Chief, Planning Section Chief, Logistics Section Chief, Finance/Administration Section Chief) to gather under informal and relaxing conditions to share and update each other on developing issues.

5.2.12 Business Management Meeting

This meeting is for participants to develop and update the Crisis Manager on the status, progress, and forecast of the IAP. The agenda could include: finance requirements and criteria imposed by contributing organizations, business operating plan for resource procurement and incident funding, cost analysis, and financial summary data. Attendees include: Incident Commander, Operations, Planning, Logistics, and Finance/Administration Section Chiefs, Cost Unit Leader, Supply Unit Leader, Situation Unit Leader, Environmental Unit Leader, and Demobilization Unit Leader. This meeting is generally conducted outside of the ICS Structure allowing exchange of information between Company Management Liaison (Crisis Manager) and the Response effort. It is suggested this meeting is held before the ICS PLANNING MEETING.

5.2.13 Agency Representative Meeting

The purpose of this meeting is to update agency representatives and to ensure that they can support IAP. Conducted by Liaison Officer, attended by Agency Representatives. Most appropriately held after the PLANNING MEETING in order to announce plans for next operational period, yet flexible enough to allow for changes should the plan's expectations be unattainable by an agency.

5.2.14 News Briefing

Refer to **SECTION 7.2** for Public Affairs information and policies.

5.3 ICS FORMS

ICS Forms are available electronically via this Plan's Forms Navigator.

Note: These forms are alternate or suggested forms to be used as appropriate.

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

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

- 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 needs to be approved by the Incident Commander, Federal On-Scene Coordinator (FOSC), and State On-Scene Coordinator (SOSC).

  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

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

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, provides weather, tide and current information, and safety considerations for use during the next operational period.

- **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 Division/Group level.

- COMMUNICATIONS PLAN - ICS 205

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

- MEDICAL PLAN - ICS 206

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

5.3 ICS FORMS, CONTINUED

ICS Forms are available electronically via this Plan's Forms Navigator.

Note: These forms are alternate or suggested forms to be used as appropriate.

- **INCIDENT STATUS SUMMARY - ICS 209**

  Used to inform personnel about the status of response efforts. It is not included in the IAP.

- **UNIT LOG - ICS 214**

  Used to log activities for an entire unit.

- **INDIVIDUAL LOG - ICS 214a**

  Used to log activities for an individual.

5.3.1 Incident Briefing ICS 201-OS

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)

5.3.1 Incident Briefing ICS 201-OS, Continued

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

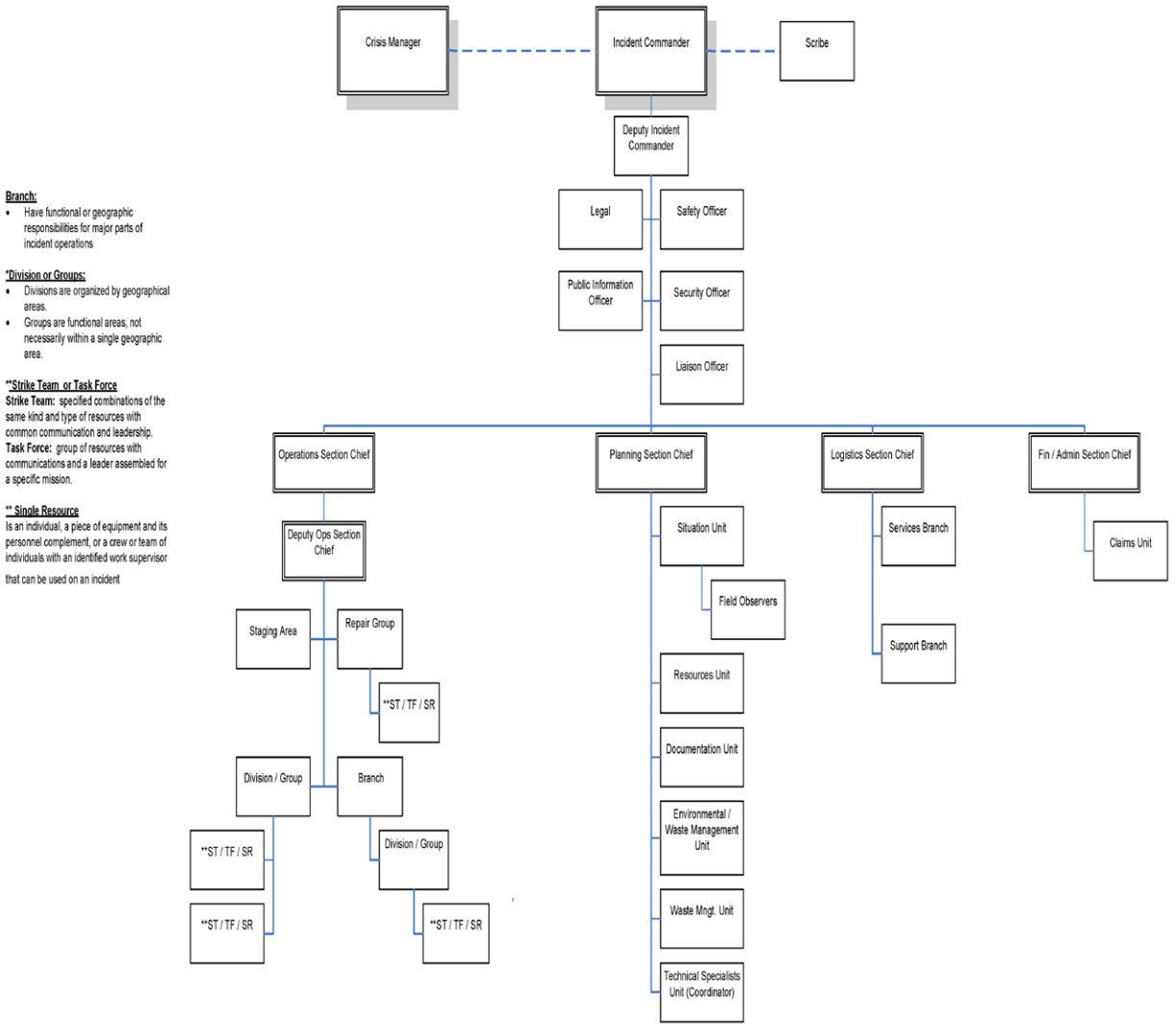
INCIDENT BRIEFING	March, 2000	ICS 201-OS (pg 2 of 4)

Northern Zone 5 - 14

5.3.1 Incident Briefing ICS 201-OS, Continued

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)

5.3.1 Incident Briefing ICS 201-OS, Continued

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)

5.3.2 Incident Action Plan (IAP) Cover Sheet

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 (Incident Objectives)
- ☐ ICS 203-OS (Organization Assignment List)
- ☐ ICS 204-OS (Assignment List)
- ☐ ICS 205-OS (Communications Plan)
- ☐ ICS 206-OS (Medical Plan)
- ☐ ICS 209-OS (Incident Status Summary)
- ☐ ICS 214-OS (Unit Log)
- ☐ ICS 214a-OS (Individual Log)
- ☐
- ☐

4. Prepared By: (Planning Section Chief)	**Date/Time:**
IAP COVER SHEET	March, 2000

5.3.3 Incident Objectives ICS 202-OS

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 205-OS)

☐ Medical Plan (ICS 206-OS) ☐ Weather

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

INCIDENT OBJECTIVES	March, 2000	ICS 202-OS

5.3.4 Organization Assignment List ICS 203-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:		
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

7. Operations Section

Chief
Deputy

a. Branch I - Division/Groups

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

a. Support Branch		Helicopter Coordinator	
Director		Fixed-wing Coordinator	
Supply Unit		8. Finance Section	
Facilities Unit		Chief	
Transportation Unit		Deputy	
Vessel Support Unit		Time Unit	
Ground Support Unit		Procurement Unit	
b. Service Branch		Compensation Unit	
Director		Cost Unit	
Communications Unit			
Medical Unit			
Food Unit			

9. Prepared by: (Resources Unit)	Date/Time	
ORGANIZATION ASSIGNMENT LIST	March, 2000	ICS 203-OS

5.3.5 Assignment List ICS 204-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/Croup 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		ICS 204-OS

5.3.6 Communications Plan ICS 205-OS

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

3. Basic Radio Channel Use

SYSTEM/CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

4. Prepared By (Communications Unit)	Date/Time
COMMUNICATIONS PLAN March, 2000 ICS 205-OS	

5.3.7 Medical Plan ICS 206-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

5.3.8 Incident Status Summary ICS 209-OS

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	☐

	Since Last Report	Total
Volume Spilled		
Mass Balance/Oil Budget		
Recovered Oil		

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

8. Equipment Resources				[RUL]
Description	Ordered	Available / Staged	Assigned	Out of Service
Spill Resp.				

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						

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

INCIDENT STATUS SUMMARY	March, 2000	ICS 209-OS

5.3.9 Unit Log ICS 214-OS

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

5. Personnel Assigned

Name	ICS Position	Home Base

6. Activity Log (Continue on Reverse)

Time	Major events

7. Prepared by:	Date / Time

UNIT LOG	June 2000	ICS 214-OS

5.3.9 Unit Log ICS 214-OS, Continued

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

5. Personnel Assigned

Name	ICS Position	Home Base

6. Activity Log (Continue on Reverse)

Time	Major events

7. Prepared by:	Date / Time

5.3.10 Individual Log ICS 214a-OS

1. Incident Name	2. Operational Period (Date / Time) From: To:	INDIVIDUAL LOG **ICS 214a-OS**

3. Individual Name	**4. ICS Section**	**5. Assignment / Location**

6. Activity Log	Page	of

TIME	MAJOR EVENTS

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

		ICS

INDIVIDUAL LOG	June 2000	214a-OS

5.4 SITE SAFETY AND HEALTH PLAN

5.4.1 Safety Introduction and Overview

Responding to incidents can be very hazardous. Critical areas deserving special attention are **Prevention of Incidental Ignition** and **Personnel Safety**. The following safety considerations shall be followed:

Prevention of Incidental Ignition

- Establish a safe working area.
- Monitor for LEL with appropriate air monitoring equipment.
- Utilize EH&S Work Permit during the Incident.
- Use non-sparking tools as applicable.

Personnel Safety

- Utilize the appropriate air monitoring equipment to protect yourselves from the vapors or fumes of petroleum products and crude oils. High concentrations of these vapors may be toxic and can be an asphyxiate.
- Work using the "buddy system" (that is, two people working as a team).
- Use proper respiratory protection equipment (APRs or SCABA) and other applicable PPE when necessary.

The Site Safety Plan in conjunction with the EH&S Work Permit System provides a comprehensive framework for initiating and maintaining quality safety practices. All personnel are responsible for promoting a safe and healthy environment during the incident response. The following Site Safety Plan is designed to provide a consistent, comprehensive process to meet this objective.

For small, minor incidents, the Safety Plan may consist of a EH&S Work Permit and the Safety Plan Checklist or equivalent company Work Permit.

5.4.2 Initial Site Safety and Health Plan

SAFETY PLAN CHECKLIST

ASSIGN SITE SAFETY RESPONSIBILITY
Name:
ESTABLISH PERIMETER AND RESTRICT ACCESS (Compile sketch as necessary)
CHARACTERIZE SITE HAZARDS
• Identify pollutant:
• Obtain Material Safety Data Sheets

• Conduct air monitoring as necessary:
• Identify physical and biological hazards, i.e.: slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants, and biological waste:
ESTABLISH CONTROL ZONES
• Exclusion zone:
• Contamination reduction zone:
• Support zone:
ASSESS TRAINING REQUIREMENTS
• Ensure only authorized persons are allowed access
UTILIZE EH&S SAFE WORK PERMITS AS INITIAL SITE SAFETY PLAN
• Ensure safety briefings
• Select Personal Protective Equipment
• Level A, B, C, or D:
ESTABLISH DECONTAMINATION STATION(S)
ESTABLISH EMERGENCY MEDICAL PLAN
• Locate hospital, EMT, and first aid stations:
• List emergency numbers:
Fire:
Police:
Ambulance:
For other spills of significance, the Site Safety Plan is designed to meet the Safety Objectives.

5.4.3 Site Safety and Health Plan

Incident Name:	
Date:	Site Safety Officer:
Scope	
This Site Safety Plan is for use on the specified above incident and response to a spill of _____ estimated to be approximately _____ in volume. This incident is being managed by designated Company personnel integrated with on-site	

Federal, State, and/or Local response representatives along with the use of commercial HAZWOPER-accepted qualified contractors.

This plan is based on the regulations and recommendations of Federal Agencies such as OSHA, EPA, DOT, and USCG and the Company.

Company personnel or contractors will be on site to address safety concerns, site safety plans, conduct Industrial Hygiene monitoring, and for special assistance; however, the day-to-day safe operation of the site and project is the responsibility of trained site supervisors. Every site employee shall comply with provisions of this plan and focus constant attention on preventing loss or damage to any person, property, process, or the environment.

Site Description
Location:
This incident is at _____, in the state of _____, and in the vicinity of _____. The Command Post is currently located at _____. The Incident Base and Staging Area are located at _____.

5.4.3 Site Safety and Health Plan, Continued

On-Site Control Boundaries:	**Marking:**
Exclusion Zone - Hotline	As designated by:
Contamination Reduction Zone	As designated by:
Support Zone	As designated by:
Hazards:	
Area Affected:	
The area is _____and is identified as the Hot Zone.	
Surrounding Population:	
Topography:	
Weather Conditions:	

The weather is _____, temp. is _____, and there is a _____ % chance of precipitation. The prevailing wind is from the _____ at _____ mph throughout the day.
Environmental and Archeological Concerns:
Initial Entry Objectives:

5.4.3 Site Safety and Health Plan, Continued

Additional Information:
Identified sources of ignition within or adjacent to the spill or contained liquid will be shut down, secured, isolated or monitored, as appropriate. Electrical equipment shall be in compliance with regulatory requirements. Note: Smoking is not allowed on Company property.
Site Access
Personnel shall notify the Site Safety Officer or designee prior to entering or leaving the site. _____ has been designated to control access. A sign-in log will be maintained at the incident base. Persons entering the area shall sign in/out. Entry into spill area will be by trained personnel only. Training documentation shall be provided to the Site Safety Officer prior to entry.
Hazard Evaluation
Chemical Hazards:
The following substance is known to be at the Spill site.

Substance:	**Primary Hazard:**
☐ Crude Oil	Flammable/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Gasoline	Flammable/Slightly Toxic/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Diesel Fuel	Flammable/Slightly Toxic/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Jet Fuel	Flammable/Moderately Toxic/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Additive	Flammable/Slightly-Moderately Toxic/Skin, Eye, Nose, Throat, and Lung Irritant
☐ Butane	Flammable/Asphyxiant/Prolonged contact may cause frostbite

☐ Kerosene	Flammable/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Propane	Flammable/Asphyxiant/Prolonged contact may cause frostbite/Explosive mixtures with air
☐ Benzene	Flammable/Skin and Eye Irritant/May be toxic if inhaled or ingested
☐ Hydrogen	Flammable gas/Asphyxiant/Colorless and odorless
☐ Toluene	Flammable/Skin and Eye Irritant/may be toxic if inhaled or ingested
☐ Xylene	Flammable/Skin and Eye Irritant/may be toxic if inhaled or ingested
☐ Natural Gas	Flammable gas/Asphyxiant/Colorless and odorless
☐ Fuel Gas	Flammable/Poisonous Gas/Skin and Eye Irritant/Prolonged contact may cause frostbite/Harmful or fatal is swallowed

5.4.3 Site Safety and Health Plan, Continued

Material Safety Data Sheets
Material Safety Data Sheets for Company Products are located on the company intranet. Employees involved in an emergency response are trained to read Company MSDS and to know where they are located. MSDS for material released/spilled during this incident can be found at the following locations:

Personal Protective Equipment		
The following Personal Protective Equipment (PPE) shall be required for entry into the Spill Area during the cleanup process.		
Level B	Level C	Level D
1. Hard Hat 2. Self Contained Breathing Apparatus 3. Latex inner gloves, Neoprene outer gloves 4. Flame retardant clothing, such as Nomex suits, with cuffs and pant legs duct tape sealed 5. Radios will be provided to the entry team, backup team, and command staff. These radios shall be intrinsically safe and tested prior to entry	1. Hard Hat 2. Safety glasses with side shields, splash goggles, or safety glasses with full face shield 3. Neoprene gloves 4. Tyvek disposable suit with cuffs and pant legs duct tape sealed 5. If monitoring results indicate the continued need for respiratory protection, SCABAs or SARs may be used. If a half mask or a full face respirator is allowed, it must be NIOSH-approved and use the correct type of cartridge	1. Hard Hat 2. Safety Glasses 3. Long sleeved shirt - tank tops will not be allowed 4. Long legged pants or overalls - shorts will not be allowed 5. Hand protection as needed 6. Additional items as required by Safety Officer

Northern Zone 5 - 32

5.4.3 Site Safety and Health Plan, Continued

Decontamination
A Decon Site Layout (**SECTION 5.5**) shall be used to construct the Decon area. Personnel involved in the response and entering the Hot Zone area shall be trained and equipped to meet the requirements of Emergency Response. Decon Site(s) should be constructed at the point of entry to the Hot Zone. Multiple Decon Sites may be necessary for multiple cleanup areas or when an area has multiple entry points.
Communications
Only intrinsically safe electronic devices will be allowed within the Hot Zone. Verbal and hand signal communication is allowed in the Hot Zone. Cellular phones, pagers, lamps, or flare devices shall not be allowed into Hot Zone unless intrinsically safe and approved by the Safety Office or designee. Other non-sparking methods which cannot produce ignition may be allowed in the Hot Zone, but must be approved by the Safety Officer. Cellular phones, pagers, stationary telephones, and any other communication devices shall be allowed by the Safety Officer into other support areas of the incident.
Personal Identification
As available, Incident Command position personnel shall wear vests with the position label on the vest (Incident Commander, Planning, Logistics, Operations, Safety, etc.) If vests are not available, the IC personnel shall ensure they are recognized by personnel they are supervising.
First Aid
First aid kits are located at _____. Serious injuries will be treated by 911 EMS response systems as needed. Injuries, no matter how slight, shall be reported to a Safety Officer immediately.

Northern Zone 5 - 33

5.4.3 Site Safety and Health Plan, Continued

Emergency Eye Wash Station:
Portable emergency eyewash stations are located at _____.
Potable Water:
Potable water is available at _____.
Toilet Facilities:
Toilet facilities are available at _____.

Air Monitoring:
Air monitoring shall be conducted by _____, who will utilize _____ to monitor the levels of _____. Other sampling devices or media must be approved by the Safety Officer prior to being allowed into the area. A log sheet shall be maintained for gas monitoring data to be logged on _____ minute interval. Readings shall be collected from the perimeter of the cleanup area on a _____ interval. Air monitoring shall continue until the Safety Officer determines that it is no longer necessary.

5.4.3 Site Safety and Health Plan, Continued

Additional Health/Hygiene Sampling
Additional testing of atmosphere, personnel, or equipment may be conducted at the discretion of the Safety Officer or Incident Commander.
Emergency Procedures
The following standard emergency procedures will be used by the on-site personnel. The Incident Commander, Operations Chief, and Safety Supervisor shall be made aware of any on-site emergencies and be responsible for ensuring that the appropriate procedures are followed: **Injury/Illness in the area:** An injury or illness occurring in the response area shall be immediately communicated through the Command Staff to the Safety Officer in order that it may be responded to in the degree necessary. This includes everything from minor first aid treatment to the more serious injuries involving the 911 EMS system. A medical emergency shall receive immediate attention and appropriate response. Company notification by the on-site personnel shall be in the following order until contact is made with one of the following: the Site Safety Officer, Operations Section Chief, Incident Commander, or Operations Manager.
911 EMS Response Service:
Refer to **SECTION 3** for the appropriate notifications.
Personal Protective Equipment Failure:
If worker experiences a failure or alteration of protective equipment that affects the protection factor, that person shall immediately evacuate to a safe area. Decon procedures shall be followed. The Safety Officer shall be notified immediately. Return to the area shall not be permitted until the equipment has been properly and effectively repaired or replaced.

Other Equipment Failure:
If other equipment fails to operate properly, the Operations Chief shall be notified and then

determine the effect of this failure on continuing the operations. If the failure affects the safety of personnel or prevents completion of the planned tasks, personnel shall leave the area until the situation is corrected.		
Plan Prepared By:		
Safety Officer:		
Printed Name	Signature	Date
Plan Reviewed By:		
Operations Chief:		
Printed Name	Signature	Date
Plan Approved By:		
Incident Commander:		
Printed Name	Signature	Date

5.5 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 shall 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 zones or where otherwise designated. Decontamination stations are to be equipped and manned to assist personnel leaving a contaminated zone to remove, package, and label soiled or contaminated response equipment, thus preventing the spread of contaminants.

Listed below are recommended stations for a Decontamination Plan.

Note 1: Not all of these stations may be necessary. The actual type and number of stations will be decided by the Decontamination Group in conjunction with the Safety Officer based on the type of material released and the hazards of the material.

Note 2: Can sizes of 10 and 32 gallon in Minimum Decontamination Layout are recommended sizes. Actual container size used will depend upon availability (i.e. using a 55 gallon drum in lieu of a 32 gallon trash can).

5.5 DECONTAMINATION PLAN, CONTINUED

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 a scrub brush and decontamination solution.
STATION 8	Suit, 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	Suit removal	With assistance of helper, remove outer suit (Tyvek suits). 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

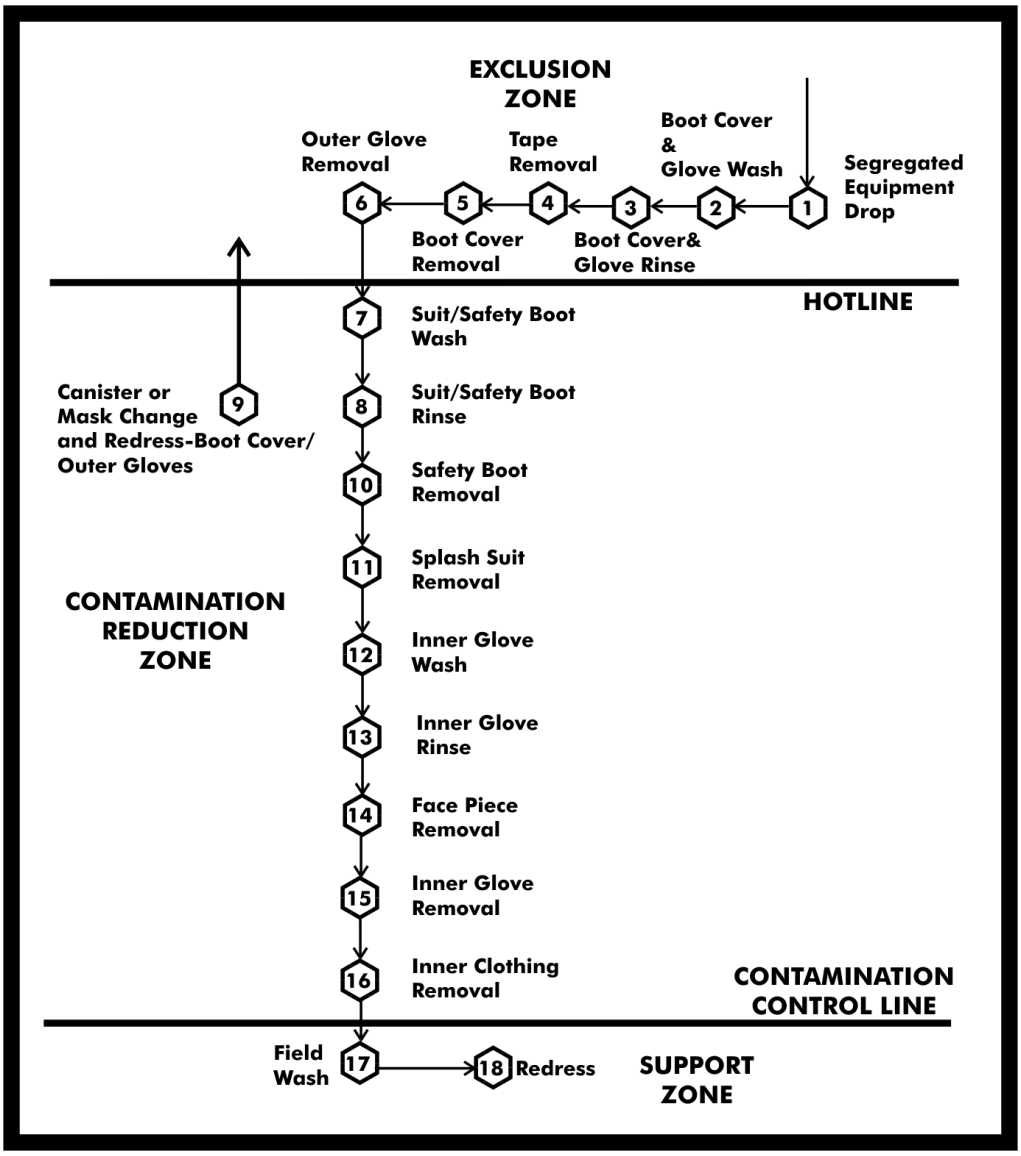
		plastic liner. Avoid touching face with fingers.
STATION 15	Inner glove removal	Remove inner gloves and deposit in lined container.

5.5 DECONTAMINATION PLAN, CONTINUED

MAXIMUM MEASURES FOR DECONTAMINATION, CONTINUED		
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	If highly toxic, skin-corrosive, or skin-absorbable materials are known or suspected to be present, work with safety; an on-site shower may be necessary. Wash hands and face if shower is not available.
STATION 18	Re-dress	Put on clean clothes. Exit point of the Decontamination Site.

5.5 DECONTAMINATION PLAN, CONTINUED

DECONTAMINATION PROCEDURES, MAXIMUM DECONTAMINATION LAYOUT



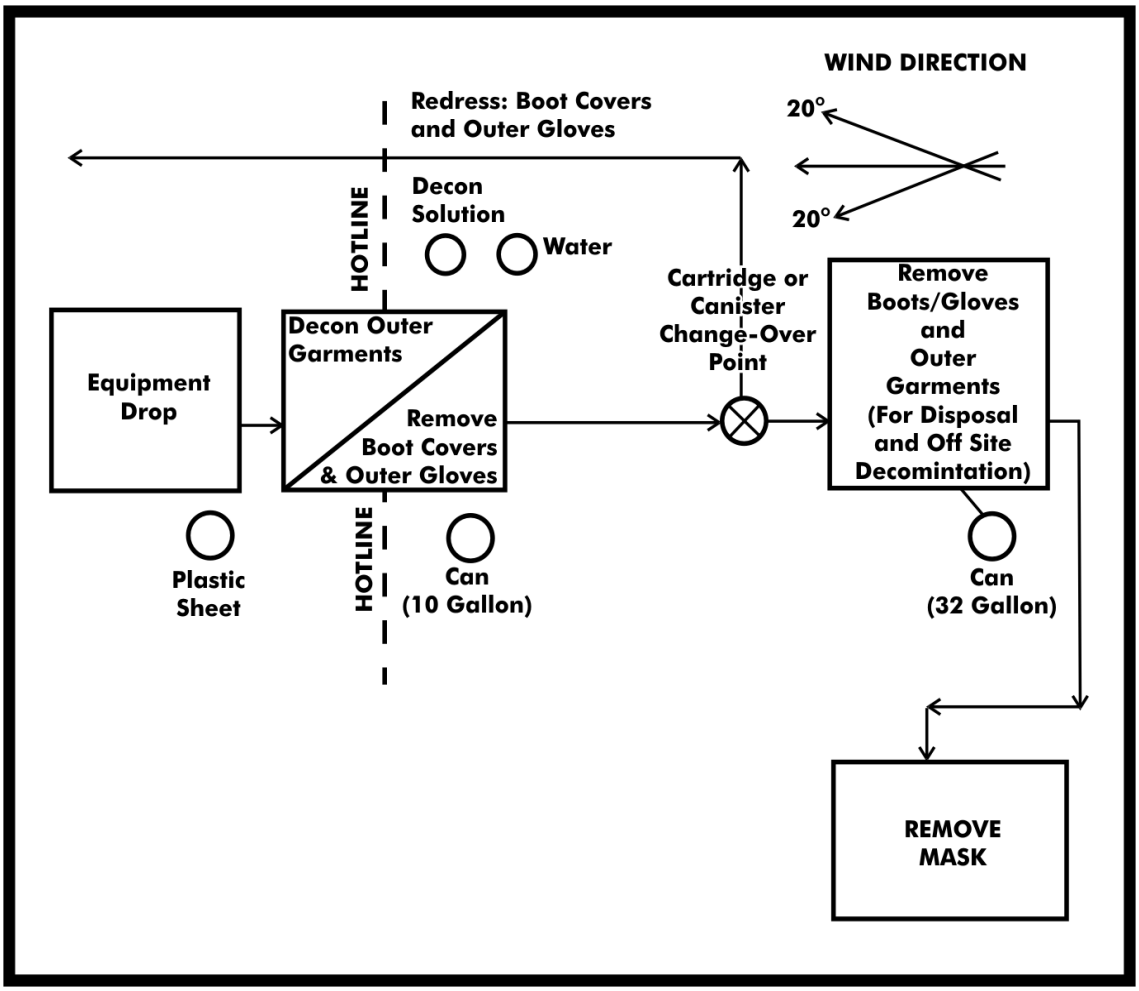
5.5 DECONTAMINATION PLAN, CONTINUED

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, and gloves wash and rinse	Scrub outer boots, outer gloves, and splash suit 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	If worker leaves exclusion zone to change canister

	change	(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, and 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. Exit point of the Decontamination Site.

5.5 DECONTAMINATION PLAN, CONTINUED

DECONTAMINATION PROCEDURES, MINIMUM DECONTAMINATION LAYOUT



5.6 DISPOSAL PLAN

This Disposal Plan is to be completed after a discharge has taken place in and accordance with guidance presented in **SECTION 7.4**, "Waste Management".

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:

5.6 DISPOSAL PLAN, CONTINUED

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:

5.6 DISPOSAL PLAN, CONTINUED

Additional information:
Waste coordinator:

(b) (7)(F)

[redacted]

(b) (7)(F)

5.8 DEMOBILIZATION PLAN

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

Demobilization procedures:

- Each incident will require a Decontamination Area or designate where larger equipment may be sent for decontamination
- Operations Section will send resources not in use at a specific collection site to a designated decontamination sites for re-assignment or release
- Decontaminated equipment will be returned to appropriate staging area for release or re-deployment at other locations
- Long term information maintained by the Planning and Operations Section Chiefs may be utilized to assist in the prioritization of releasing equipment versus placing it on stand-

by

- Each Planning Section (Decontamination Site, Staging Area, and Logistics) will document the demobilization, decontamination, re-deployment, or release of equipment at each stage
- The Staging Group Leader will provide Demobilization Plan detailing re-deployment strategies on equipment, plus priorities on demobilization and release recommendations for equipment at the staging areas
- The Demobilization Plan is to be incorporated into the Incident Action Plan (IAP) for ICS Approval. As assigned by the Demobilization Plan within the IAP, equipment designated for re-assignment will be mobilized to the appropriate staging area
- The Operations Section will ensure that re-deployed personnel receive proper rest prior to returning to duty
- The Planning Section Chief will monitor personnel re-deployment activities to ensure number of hours worked is within acceptable guidelines
- Staging Group Leader will release equipment designated for release. Transports may be required for equipment if in remote staging area
- Once equipment is released and removed from staging areas, Logistics and the Finance Unit shall be informed to ensure invoicing reflects the dates released

SECTION 6 Last revised: December 16, 2011

SENSITIVE AREAS / RESPONSE TACTICS

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6.1 Area Description

6.2 Spill Containment / Recovery

Figure 6.2-1 - Response Tactics for Various Shorelines

6.3 Sensitive Area Protection

Figure 6.3-1 - Sensitive Area Protection Implement Sequence

Figure 6.3-2 - Summary of Shoreline and Terrestrial Cleanup Techniques

6.4 Wildlife Protection and Rehabilitation

6.5 Endangered and Threatened Species by State

6.6 Sensitivity Maps

6.7 Tactical Plan Index

6.8 Tactical Maps

6.9 Tactical Plans

6.10 Areas of Concern

6.1 AREA DESCRIPTION

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

Sensitivity maps are provided in **SECTION 6.6**.

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, 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. Forming collection ponds for containing free product may be considered when attempting to recover free oil. Absorbents such as hay, straw, dry dirt or sand, and other commercial products (such as peat moss) may be considered as alternative methods of containment.

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. A summary of booming techniques is provided below.

Containment/Diversion Berming	• Berms are constructed ahead of advancing surface spills to contain spill or divert spill to a containment area • May cause disturbance of soils and some increased soil

	penetration
Blocking/Flow-Through Dams	• Construct dam in drainage course/stream bed to block and 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 small areas of surface water (e.g. ponds, rivers, and creeks) and may be used in a manner which allows boom to work with the fluctuating water currents
- 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://www.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
	• 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
		• Small amounts of oil will contaminate the outer marsh fringe 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
			• Marshes require the highest priority for shoreline protection
			• 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	• 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,	• 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

	forested woodlands • Birds and mammals use swamps during feeding and breeding activities	the roots of swamp forest trees are not exposed; thus, little damage to trees is expected. Any underbrush vegetation, however, would be severely impacted	• 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
Salt and Brackish Water Marshes	• Marshes are intertidal wetlands containing emergent, herbaceous vegetation. • Width of the marsh can vary widely, from a narrow fringe to extensive areas. • They are relatively sheltered from waves and strong currents. • Sediments are composed of organic muds except on the margins of barrier islands where sand is abundant. • Resident flora and fauna are abundant, with numerous species with high utilization by birds.	• Oil adheres readily to marsh vegetation. • The band of coating will vary widely, depending upon the water level at the time oil slicks are in the vegetation. There may be multiple bands. • Large slicks will persist through multiple water-level changes and coat the entire stem from the high-water line to the base. • If the vegetation is thick, heavy oil coating will be restricted to the outer fringe, although lighter oils can penetrate deeper, to the limit of inundation. • Medium to heavy oils do not readily adhere to or penetrate the fine	• Under light oiling, the best practice is to let the area recover naturally. • Heavy accumulations of pooled oil can be removed by vacuum, sorbents, or low-pressure flushing. During flushing, care must be taken to prevent transporting oil to sensitive areas down slope or along shore. • Cleanup activities should be carefully supervised to avoid vegetation damage. • Any cleanup activity must not mix the oil deeper into the sediments. Trampling of the roots must be minimized. • Cutting of oiled vegetation should only be considered when other resources are at great risk from leaving oiled

		sediments, but can pool on the surface or in burrows. • Light oils can penetrate the top few centimeters of sediment and deeply into burrows and cracks (up to one meter).	vegetation in place.
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	• 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

	may include wet meadows and marshes		spills • Cleanup options include physical herding, sorbents, and debris/vegetation removal

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

TYPES	DESCRIPTION	PREDICTED OIL IMPACT	RECOMMENDED CLEANUP ACTIVITY
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 an area that is determined to be sensitive for aquatic, environmental, economic, cultural, or human use reasons. Implementation of sensitive area protection techniques should 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 Facility are provided in SECTION 6.7.

FIGURE 6.3-1 - SENSITIVE AREA PROTECTION IMPLEMENT SEQUENCE

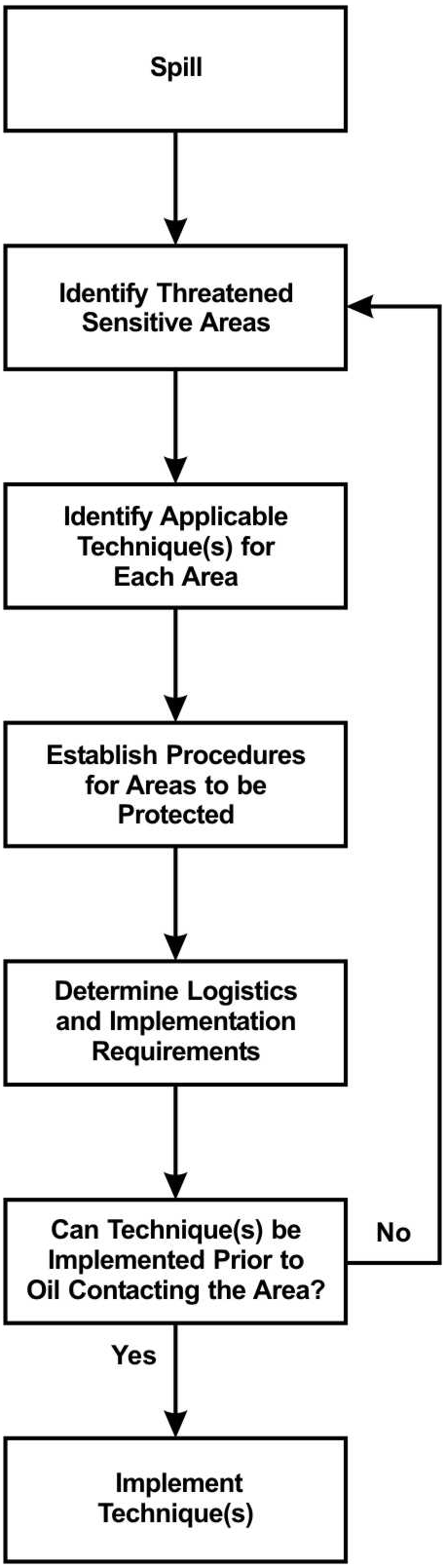


FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES

TECHNIQUE	DESCRIPTION	RECOMMENDED EQUIPMENT	APPLICABILITY	POTENTIAL ENVIRONMENTAL

				EFFECTS
Removal				
1. Manual Removal	Hand tool (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.	Equipment misc. hand tools Personnel 10-20 workers	• Can be used 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	• Sediment 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	• Sediment disturbance and erosion potential • Trampling of vegetation and organisms • Foot traffic can work oil deeper into soft sediments

			restricted	
4. Vacuum / Pumps / Skimmers	Pumps, vacuum trucks, skimmers are used to remove oil accumulations from land or relatively thick floating layers from the water.	Equipment 1-2 50- to 100-bbl vacuum trucks w/hoses 1-2 nozzle screens or skimmer heads Personnel 2-6 workers plus truck operators	• Can be used on all habitat types • Stranded oil on the substrate • Shoreline access points	• Typically does not remove all 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	Equipment 1-5 50- to 100-gpm/ 100-psi pumping systems with manifold 1-4 100-ft hoses	• Substrates, riprap, and solid man-made structures • Oil stranded	• Can impact clean downgradient areas • Will displace many surface

	oil from surface or near-surface sediments through agitation and direct 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.	and nozzles per system 1-2 200-ft containment booms per system 1 oil recovery device per system Personnel 8-10 workers per system	onshore • Floating oil on shallow intertidal areas	organisms if present • Sediments transported into water can affect 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	Equipment 1 tractor fitted with tines, dicer, ripper blades, etc. or 1-4 rototillers or 1 set of hand tools Personnel	• Any sedimentary substrate that can support heavy equipment • Sand and	• Significant amounts of oil can remain on the shoreline for extended periods of time • Disturbs surface

	sediments to maximize natural degradation processes.	2-10 workers	gravel beaches with subsurface oil • Where sediment is stained or lightly oiled • Were oil is stranded above normal high waterline	sediments and organisms

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	Equipment 1 set of fire control equipment 2-4 fans	• On most habitats except dry muddy	• Heat may impact local near-surface organisms

	burned to minimize material handling and disposal requirements.? Material should be stacked in tall piles and fans used to ensure a hot, clean burn.	1 supply of combustion promoter Personnel 2-4 workers	substrates where heat may impact the biological productivity of the habitat • Where heavily oiled items are difficult or impossible to move • Many potential applications on ice	• Substantial smoke may be generated • Heat may impact adjacent vegetation
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 (use of dispersants requires Federal or State approval)	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	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	• 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

	products containing surface-active agents are sprayed from aircraft or boats onto the slick.		impact of dispersed oil on the water-column community	occur
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 WILDLIFE PROTECTION AND REHABILITATION

- The Company will support wildlife protection and rehabilitation efforts during the response but will not typically directly manage these efforts.
- Domestic Animal Specialists such as veterinarians may be utilized to rescue or clean oiled animals such as livestock, dogs, horses, etc. **FIGURE 3.1-7**, Additional Resources and Telephone Numbers.
- 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 3.1-5**.
- Wildlife rehabilitation specialists may be utilized to assist in capturing and rehabilitating oiled wildlife as well as deterring unaffected animals away from the spill site. **FIGURE 3.1-7**, Additional Resources and Telephone Numbers.

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Amphipod	*Stygobromus russelli*	subterranean waters, usually in caves and limestone aquifers; resident of numerous caves in ca. 10 counties of the Edwards Plateau		Texas	Williamson County
Amphipod	*Stygobromus*	subterranean waters, usually in caves and limestone aquifers; resident		Texas	Travis

	russelli	of numerous caves in ca. 10 counties of the Edwards Plateau			County
Amphipod, Balcones Cave	*Stygobromus balconis*	subaquatic, subterranean obligate amphipod		Texas	Travis County
Amphipod, Bifurcated cave	*Stygobromus bifurcatus*	found in cave pools		Texas	Travis County
Amphipod, Bifurcated cave	*Stygobromus bifurcatus*	found in cave pools		Texas	Williamson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Amphipod, Ezell's cave	*Stygobromus flagellatus*	known only from artesian wells		Texas	Williamson County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Caldwell County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Gonzales County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	McLennan County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Travis County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Bastrop County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Bexar County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Fayette County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Guadalupe County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Milam County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Williamson County
Bass, Guadalupe	*Micropterus treculii*	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		Texas	Bell County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of		Texas	Hill County

		individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore			
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Travis County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Bastrop County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in			

Bat, Cave Myotis	*Myotis velifer*	abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Bexar County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Caldwell County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Fayette County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and		Texas	Lee County

		gypsum cave of Panhandle during winter; opportunistic insectivore			
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	McLennan County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Milam County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters		Texas	Williamson County

		of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore			
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Bell County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Burleson County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Falls County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Gonzales County
Bat, Cave Myotis	*Myotis velifer*	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		Texas	Guadalupe County
Bat, Ghost-faced	*Mormoops megalophylla*	colonially roosts in caves, crevices, abandoned mines, and buildings; insectivorous; breeds late winter-early spring; single offspring born per year		Texas	Bexar County
		bottomland hardwoods			

Bear, Black	*Ursus americanus*	and large tracts of inaccessible forested areas; due to field characteristics similar to Louisiana Black Bear (LT, T), treat all east Texas black bears as federal and state listed Threatened	T (Federal by Similarity of Appearance); Not Federally Listed; T (State)	Texas	Bexar County
Bear, Louisiana Black	*Ursus americanus luteolus*	possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas	T	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Bear, Louisiana Black	*Ursus americanus luteolus*	possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas	T	Texas	Burleson County
Beetle, A ground	*Rhadine exilis*	small, essentially eyeless ground beetle; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County
Beetle, A ground	*Rhadine infernalis*	small, essentially eyeless ground beetle; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County
Beetle, Coffin Cave mold	*Batrisodes texanus*	resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties	E (Federal)	Texas	Williamson County
Beetle, Helotes mold	*Batrisodes venyivi*	small, eyeless mold beetle; karst features in northwestern Bexar County and northeastern Medina County	E (Federal)	Texas	Bexar County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Beetle, Kretschmarr Cave mold	*Texamaurops reddelli*	small, cave-adapted beetle found under rocks buried in silt; small, Edwards Limestone caves in of the Jollyville Plateau, a division of the Edwards Plateau	E (Federal)	Texas	Travis County
Beetle, Tooth Cave blind rove	*Cylindropsis sp 1*	one specimen collected from Tooth Cave; only known North American collection of this genus		Texas	Travis County
Beetle, Tooth Cave ground	*Rhadine persephone*	resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties	E (Federal)	Texas	Williamson County
Beetle, Tooth Cave ground	*Rhadine persephone*	resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties	E (Federal)	Texas	Travis County
Bellflower, Basin	*Campanula reverchonii*	Texas endemic; among scattered vegetation on loose gravel, gravelly sand, and rock outcrops on open slopes with exposures of igneous and metamorphic rocks; may also occur on sandbars and other alluvial deposits along major rivers; flowering May-July		Texas	Travis County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Blindcat,	*Trogloglanis*	troglobitic, blind catfish endemic to the San Antonio			Bexar

Toothless	*pattersoni*	Pool of the Edward's Aquifer	T (State)	Texas	County
Blindcat, Widemouth	*Satan eurystomus*	troglobitic, blind catfish endemic to the San Antonio Pool of the Edward's Aquifer	T (State)	Texas	Bexar County
Cavesnail, Mimic	*Phreatodrobia imitata*	subaquatic; only known from two wells penetrating the Edwards Aquifer		Texas	Bexar County
Coral-root, Warnock's	*Hexalectris warnockii*	in leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under Quercus fusiformis mottes on terrraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years		Texas	Travis County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Johnson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Robertson County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	McLennan County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Milam County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Bastrop County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Bell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Bexar County
		potential migrant via plains			

Crane, Whooping	*Grus americana*	throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Burleson County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Caldwell County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Falls County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Fayette County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Gonzales County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Guadalupe County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio	E	Texas	Travis County

		counties			
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Hill County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Williamson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Tarrant County
Crane, Whooping	*Grus americana*	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	E	Texas	Lee County
Crayfish	*Procambarus texanus*	ponds		Texas	Bastrop County
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Travis County
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity		Texas	Williamson County

		(historic) River basins			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Bastrop County
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Bexar County
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Caldwell County
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Fayette County
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Gonzales County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Creeper (Squawfoot)	*Strophitus undulatus*	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		Texas	Guadalupe County
Croton, Texabama	*Croton alabamensis var texensis*	Texas endemic; in duff-covered loamy clay soils on rocky slopes in forested, mesic limestone canyons; locally abundant on deeper soils on small terraces in canyon bottoms, often forming large colonies and dominating the shrub layer; scattered individuals are occasionally on sunny margins of such forests; also found in contrasting habitat of deep, friable soils of limestone uplands, mostly in the shade of evergreen woodland mottes; flowering late February-March; fruit maturing and dehiscing by early June		Texas	Bell County
Croton, Texabama	*Croton alabamensis var texensis*	Texas endemic; in duff-covered loamy clay soils on rocky slopes in forested, mesic limestone canyons; locally abundant on deeper soils on small terraces in canyon bottoms, often forming large colonies and dominating the shrub layer; scattered individuals are occasionally on sunny margins of such forests; also found in contrasting habitat of deep, friable		Texas	Travis County

		soils of limestone uplands, mostly in the shade of evergreen woodland mottes; flowering late February-March; fruit maturing and dehiscing by early June			
Crustaean, A cave obligate	*Monodella texana*	subaquatic, subterranean obligate; underground freshwater aquifers		Texas	Bexar County
Damselfly, Leonora's dancer	*Argia leonorae*	south central and western Texas; small streams and seepages		Texas	Williamson County

T - Threatened
E - Endangered

Northern Zone 6 - 30

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Damselfly, Leonora's dancer	*Argia leonorae*	south central and western Texas; small streams and seepages		Texas	Travis County
Darter, Guadalupe	*Percina sciera apristis*	Guadalupe River basin; most common over gravel or gravel and sand raceways of large streams and rivers		Texas	Guadalupe County
Darter, Guadalupe	*Percina sciera apristis*	Guadalupe River basin; most common over gravel or gravel and sand raceways of large streams and rivers		Texas	Caldwell County
Darter, Guadalupe	*Percina sciera apristis*	Guadalupe River basin; most common over gravel or gravel and sand raceways of large streams and rivers		Texas	Gonzales County
Dragon-head, Correll's false	*Physostegia correllii*	wet, silty clay loams on streamsides, in creek beds, irrigation channels and roadside drainage ditches; or seepy, mucky, sometimes gravelly soils along riverbanks or small islands in the Rio Grande; or underlain by Austin		Texas	Travis County

		Chalk limestone along gently flowing spring-fed creek in central Texas; flowering May-September			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Dragon-head, Correll's false	*Physostegia correllii*	wet, silty clay loams on streamsides, in creek beds, irrigation channels and roadside drainage ditches; or seepy, mucky, sometimes gravelly soils along riverbanks or small islands in the Rio Grande; or underlain by Austin Chalk limestone along gently flowing spring-fed creek in central Texas; flowering May-September		Texas	Bexar County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Caldwell County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Milam County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Tarrant County

Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Travis County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Williamson County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Hill County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter;	Delisted (Federal) T (State)	Texas	Falls County

		hunts live prey, scavenges, and pirates food from other birds			
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Fayette County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Lee County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	McLennan County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Guadalupe County
		found primarily near rivers and large lakes;			

Eagle, Bald	*Haliaeetus leucocephalus*	nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Gonzales County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Johnson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Bastrop County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Bell County
Eagle, Bald	*Haliaeetus leucocephalus*	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	Delisted (Federal) T (State)	Texas	Burleson County
		year-round resident and			

Falcon, American Peregrine	*Falco peregrinus anatum*	local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Bastrop County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Bell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, American	*Falco peregrinus*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats	Delisted (Federal)	Texas	Gonzales

Peregrine	*anatum*	during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	T (State)		County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Fayette County
Falcon, American Peregrine	*Plagopterus argentissimus*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Falls County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including	Delisted (Federal) T (State)	Texas	Guadalupe County

		urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.			
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Hill County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Caldwell County

Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Burleson County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Johnson County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	McLennan County
		year-round resident and			

Falcon, American Peregrine	*Falco peregrinus anatum*	local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Travis County
		year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south;			

Falcon, American Peregrine	*Falco peregrinus anatum*	occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Lee County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Milam County
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Tarrant County
		year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and			

Falcon, American Peregrine	*Falco peregrinus anatum*	Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Williamson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, American Peregrine	*Falco peregrinus anatum*	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal) T (State)	Texas	Bexar County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier	Delisted (Federal)	Texas	McLennan County

		islands.			
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Robertson County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Travis County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Lee County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Milam County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Tarrant County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Williamson County
		migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies			

Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Caldwell County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Burleson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Falls County
		migrant throughout state from subspecies? far			

Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Bell County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Fayette County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Bastrop County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores,	Delisted (Federal)	Texas	Bexar County

		coastlines, and barrier islands.			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Guadalupe County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Delisted (Federal)	Texas	Gonzales County
Falcon, Arctic Peregrine	*Falco peregrinus tundrius*	migrant throughout state from subspecies? far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges	Delisted (Federal)	Texas	Hill County

		such as lake shores, coastlines, and barrier islands.			
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Burleson County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Bell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		both subspecies migrate across the state from more			

Falcon, Peregrine	*Falco peregrinus*	northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Bastrop County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Fayette County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Guadalupe County

Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Hill County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Gonzales County

T - Threatened
E - Endangered

Northern Zone 6 - 43

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p.			

Falcon, Peregrine	*Falco peregrinus*	anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Lee County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Milam County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Tarrant County
		both subspecies migrate across the state from more northern breeding areas in US and Canada to winter			

Falcon, Peregrine	*Falco peregrinus*	along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Williamson County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Johnson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius	Delisted (Federal)	Texas	McLennan County

		is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	T (State)		
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Robertson County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Travis County
		both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the			

Falcon, Peregrine	*Falco peregrinus*	two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Bexar County
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Delisted (Federal) T (State)	Texas	Caldwell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Falcon, Peregrine	*Falco peregrinus*	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies? listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily	Delisted (Federal) T (State)	Texas	Falls County

		distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.			
Fatmucket, Texas	*Lampsilis bracteata*	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and course gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	T (State)	Texas	Bexar County
Fatmucket, Texas	*Lampsilis bracteata*	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and course gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	T (State)	Texas	Gonzales County
Fatmucket, Texas	*Lampsilis bracteata*	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and course gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	T (State)	Texas	Travis County
Fatmucket, Texas	*Lampsilis bracteata*	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and course gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	T (State)	Texas	Guadalupe County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Fatmucket,	*Lampsilis*	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and course			Caldwell

Texas	*bracteata*	gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	T (State)	Texas	County
Fawnsfoot	*Truncilla donaciformis*	small and large rivers especially on sand, mud, rocky mud, and sand and gravel, also silt and cobble bottoms in still to swiftly flowing waters; Red (historic), Cypress (historic), Sabine (historic), Neches, Trinity, and San Jacinto River basins.		Texas	Tarrant County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Burleson County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Fayette County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Johnson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY

Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	McLennan County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Robertson County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Travis County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Williamson County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Bastrop County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Falls County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Hill County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Lee County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Milam County
Fawnsfoot, Texas	*Truncilla macrodon*	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	T (State)	Texas	Bell County

T - Threatened

E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Gay-feather, Branched	*Liatris cymosa*	Texas endemic; somewhat barren grassland openings in post oak woodlands on tight clayey, chalky, or gravelly soils, often over Catahoula Formation; flowering July-October		Texas	Burleson, Lee Counties
Giant-skipper, Manfreda	*Stallingsia maculosus*	most skippers are small and stout-bodied; name derives from fast, erratic flight; at rest most skippers hold front and hind wings at different angles; skipper larvae are smooth, with the head and neck constricted; skipper larvae usually feed inside a leaf shelter and pupate in a cocoon made of leaves fastened together with silk		Texas	Bexar County
Harvestman, Bone Cave	*Texella reyesi*	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties; weakly differentiated from Texella reddelli	E (Federal)	Texas	Williamson County
Harvestman, Bone Cave	*Texella reyesi*	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties; weakly differentiated from Texella reddelli	E (Federal)	Texas	Travis County
Harvestman, Cokendolpher Cave	*Texella cokendolpheri*	small, eyeless harvestman; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County

T - Threatened

E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Harvestman, Reddell	*Texella reddelli*	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties	E (Federal)	Texas	Travis County
Hawk, Zone-tailed	*Buteo albonotatus*	arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions	T (State)	Texas	Bexar County
Heelsplitter, Texas	*Potamilus amphichaenus*	quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins	T (State)	Texas	Tarrant County
Ibis, White-faced	*Plegadis chihi*	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats	T (State)	Texas	Bexar County
Ibis, White-faced	*Plegadis chihi*	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats	T (State)	Texas	Falls County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Ibis, White-faced	*Plegadis chihi*	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats	T (State)	Texas	Hill County
Ibis, White-faced	*Plegadis chihi*	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats	T (State)	Texas	Johnson County
Ibis, White-faced	*Plegadis chihi*	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats	T (State)	Texas	McLennan County
Jointweed, Parks'	*Polygonella parksii*	Texas endemic; mostly found on deep, loose, whitish sand blowouts (unstable, deep, xeric, sand hill barrens) in Post Oak Savanna landscapes over the Carrizo and Sparta formations; also occurs in early successional grasslands, along right-of-ways, and on mechanically disturbed areas; flowering June-late October or September-November		Texas	Burleson County
Jointweed,	*Polygonella*	Texas endemic; mostly found on deep, loose, whitish sand blowouts (unstable, deep, xeric, sand hill barrens) in Post Oak Savanna landscapes over the Carrizo and Sparta			Bexar

Parks'	*parksii*	formations; also occurs in early successional grasslands, along right-of-ways, and on mechanically disturbed areas; flowering June-late October or September-November		Texas	County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Jointweed, Parks'	*Polygonella parksii*	Texas endemic; mostly found on deep, loose, whitish sand blowouts (unstable, deep, xeric, sandhill barrens) in Post Oak Savanna landscapes over the Carrizo and Sparta formations; also occurs in early successional grasslands, along right-of-ways, and on mechanically disturbed areas; flowering June-late October or September-November		Texas	Milam County
Jointweed, Parks'	*Polygonella parksii*	Texas endemic; mostly found on deep, loose, whitish sand blowouts (unstable, deep, xeric, sandhill barrens) in Post Oak Savanna landscapes over the Carrizo and Sparta formations; also occurs in early successional grasslands, along right-of-ways, and on mechanically disturbed areas; flowering June-late October or September-November		Texas	Robertson County
		Texas endemic; mostly found on deep, loose, whitish sand blowouts (unstable, deep, xeric, sandhill barrens) in Post Oak Savanna landscapes			

Jointweed, Parks'	*Polygonella parksii*	over the Carrizo and Sparta formations; also occurs in early successional grasslands, along right-of-ways, and on mechanically disturbed areas; flowering June-late October or September-November		Texas	Guadalupe County
Ladies'-tresses, Navasota	*Spiranthes parksii*	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	E	Texas	Fayette County
Ladies'-tresses, Navasota	*Spiranthes parksii*	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	E	Texas	Burleson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		Texas endemic; openings in			

Ladies'-tresses, Navasota	*Spiranthes parksii*	post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	E	Texas	Milam County
Ladies'-tresses, Navasota	*Spiranthes parksii*	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	E	Texas	Robertson County
Ladies'-tresses, Navasota	*Spiranthes parksii*	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	E	Texas	Bastrop County
Lizard, Spot-tailed	*Holbrookia lacerata*	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other		Texas	Bexar County

Earless		obstructions, including disturbed areas; eats small invertebrates; eggs laid underground			
Lizard, Spot-tailed Earless	*Holbrookia lacerata*	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		Texas	Caldwell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Lizard, Spot-tailed Earless	*Holbrookia lacerata*	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		Texas	Guadalupe County
Lizard, Spot-tailed Earless	*Holbrookia lacerata*	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		Texas	Lee County
Lizard, Spot-tailed Earless	*Holbrookia lacerata*	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		Texas	Travis County
		central and southern Texas			

Lizard, Spot-tailed Earless	*Holbrookia lacerata*	and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		Texas	Williamson County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Bastrop County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Lee County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Milam County

Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Tarrant County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Williamson County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Bell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or	T (State)	Texas	Burleson County

		hides under rock when inactive; breeds March-September			
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Falls County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Gonzales County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Bexar County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Caldwell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Fayette County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Guadalupe County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Hill County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Johnson County
		open, arid and semi-arid			

Lizard, Texas Horned	*Phrynosoma cornutum*	regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	McLennan County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Robertson County
Lizard, Texas Horned	*Phrynosoma cornutum*	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September	T (State)	Texas	Travis County

Mayfly, A	*Procloeon distinctum*	mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation		Texas	Williamson County
Mayfly, A	*Tortopus circumfluus*	TX and MX; possibly clay substrates; mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation		Texas	Guadalupe County
Mayfly, A	*Pseudocentroptiloides morihari*	mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation		Texas	Williamson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Meadow-rue, Texas	*Thalictrum texanum*	Texas endemic; mostly found in woodlands and woodland margins on soils with a surface layer of sandy loam, but it also occurs on prairie pimple mounds; both on uplands and creek terraces, but perhaps most common on claypan savannas; soils are very moist during its active growing season; flowering/fruiting (January-)February-May, withering by midsummer, foliage reappears in late fall(November) and may persist through the winter		Texas	Fayette County

Meshweaver, Braken Bat Cave	*Cicurina venii*	small, eyeless, or essentially eyeless spider; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County
Meshweaver, Government Canyon Bat Cave	*Cicurina vespera*	small, eyeless, or essentially eyeless spider; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County
Meshweaver, Madla's Cave	*Cicurina madla*	small, eyeless, or essentially eyeless spider; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County
Meshweaver, Robber Baron Cave	*Cicurina baronia*	small, eyeless, or essentially eyeless spider; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Meshweaver, Warton's cave	*Cicurina wartoni*	very small, cave-adapted spider	Candidate for Federal Listing	Texas	Travis County
Metalmark, Rawson's	*Calephelis rawsoni*	moist areas in shaded limestone outcrops in central Texas, desert scrub or oak woodland in foothills, or along rivers elsewhere; larval hosts are Eupatorium havanense, E. greggii.		Texas	Bexar, Travis Counties
Mock-orange, Canyon	*Philadelphus ernestii*	Texas endemic; usually found growing from honeycomb pits on outcrops of Cretaceous limestone exposed as rimrock along mesic canyons, usually in the shade of mixed evergreen-deciduous canyon woodland; flowering April-June, fruit dehiscing September-October		Texas	Travis County

Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Bastrop County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Gonzales County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Lee County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio	T (State)	Texas	Milam County

		Grande, Brazos, Colorado, and Guadalupe (historic) river basins			
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Travis County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Caldwell County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Falls County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Mussel,	*Quadrula*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel			Fayette

False Spike	*mitchelli*	and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Guadalupe County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	McLennan County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Robertson County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Williamson County

T - Threatened

E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Bell County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Bexar County
Mussel, False Spike	*Quadrula mitchelli*	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins	T (State)	Texas	Burleson County
Onion, Elmendorf's	*Allium elmendorfii*	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black		Texas	Gonzales County

		hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May			
Onion, Elmendorf's	*Allium elmendorfii*	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May		Texas	Williamson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Onion, Elmendorf's	*Allium elmendorfii*	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous		Texas	Bexar County

		specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May			
Onion, Elmendorf's	*Allium elmendorfii*	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May		Texas	Guadalupe County
Orb, Golden	*Quadrula aurea*	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	T (State)	Texas	Guadalupe County
Orb, Golden	*Quadrula aurea*	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	T (State)	Texas	Bexar County
Orb, Golden	*Quadrula aurea*	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	T (State)	Texas	Caldwell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Orb, Golden	*Quadrula aurea*	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	T (State)	Texas	Gonzales County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Bexar County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Burleson County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Caldwell County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Falls County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Owl, Western	*Athene cunicularia*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near		Texas	Fayette County

Burrowing	*hypugaea*	human habitation or airports; nests and roosts in abandoned burrows			
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Gonzales County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Guadalupe County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Hill County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Bastrop County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Lee County
		open grasslands, especially prairie, plains, and savanna,			

Owl, Western Burrowing	*Athene cunicularia hypugaea*	sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Milam County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Travis County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Johnson County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	McLennan County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Tarrant County
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned		Texas	Williamson County

		burrows			
Owl, Western Burrowing	*Athene cunicularia hypugaea*	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		Texas	Bell County
Pigtoe, Louisiana	*Pleurobema riddellii*	streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins	T (State)	Texas	Tarrant County
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Burleson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or	T (State)	Texas	Fayette County

		shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins			
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Lee County
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Milam County
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Bell County
		small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates,			

Pimpleback, Smooth	*Quadrula houstonensis*	appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Travis County
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Williamson County
		small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow			

Pimpleback, Smooth	*Quadrula houstonensis*	to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Bastrop County
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Falls County
Pimpleback, Smooth	*Quadrula houstonensis*	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	Hill County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine			

Pimpleback, Smooth	*Quadrula houstonensis*	gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	T (State)	Texas	McLennan County
Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Bastrop County
Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Travis County
Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Bexar County
Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Caldwell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Fayette County
Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Gonzales County

Pimpleback, Texas	*Quadrula petrina*	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	T (State)	Texas	Guadalupe County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Bastrop County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Bell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Bexar County

Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Burleson County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Caldwell County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Falls County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Fayette County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Gonzales County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Guadalupe County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Lee County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to	Candidate for Federal Listing	Texas	Milam County

		rare further west; sensitive to patch size and avoids edges.			
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Tarrant County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Williamson County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Hill County
		only in Texas during migration and winter, mid			

Pipit, Sprague's	*Anthus spragueii*	September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Johnson County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	McLennan County
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Candidate for Federal Listing	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pipit, Sprague's	*Anthus spragueii*	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally	Candidate for Federal Listing	Texas	Travis County

		common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.			
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Bastrop County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Bell County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Bexar County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Caldwell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Plover,	*Charadrius*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression;	Proposed		Fayette

Mountain	*montanus*	nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Threatened (Federal)	Texas	County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Gonzales County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Guadalupe County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Travis County
Plover, Mountain	*Charadrius montanus*	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous	Proposed Threatened (Federal)	Texas	Williamson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pseudoscorpion, Tooth Cave	*Tartarocreagris texana*	small, cave-adapted pseudoscorpion known from small	E (Federal)	Texas	Travis County

		limestone caves of the Edwards Plateau			
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Hill County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Lee County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Milam County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Tarrant County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Burleson County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Caldwell County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Falls County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover,	T (State)	Texas	Bexar County

		i.e. grapevines or palmetto			
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Bastrop County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Gonzales County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Guadalupe County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone	T (State)	Texas	Johnson County

		bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto			
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	McLennan County
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	T (State)	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Rattlesnake, Timber/Canebrake	*Crotalus horridus*	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or	T (State)	Texas	Williamson County

		palmetto			
Sage, Big red	*Salvia pentstemonoides*	Texas endemic; moist to seasonally wet, steep limestone outcrops on seeps within canyons or along creek banks; occasionally on clayey to silty soils of creek banks and terraces, in partial shade to full sun; basal leaves conspicuous for much of the year; flowering June-October		Texas	Bexar, Guadalupe Counties
Salamander, Austin blind	*Eurycea waterlooensis*	mostly restricted to subterranean cavities of the Edwards Aquifer; dependent upon water flow/quality from the Barton Springs segment of the Edwards Aquifer; only known from the outlets of Barton Springs (Sunken Gardens (Old Mill) Spring, Eliza Spring, and Parthenia (Main) Spring which forms Barton Springs Pool); feeds on amphipods, ostracods, copepods, plant material, and (in captivity) a wide variety of small aquatic invertebrates	Candidate for Federal Listing	Texas	Travis County

Salamander, Barton Springs	*Eurycea sosorum*	dependent upon water flow/quality from the Barton Springs pool of the Edwards Aquifer; known from the outlets of Barton Springs and subterranean water-filled caverns; found under rocks, in gravel, or among aquatic vascular plants and algae, as available; feeds primarily on amphipods	E	Texas	Travis County
Salamander, Cascade Caverns	*Eurycea latitans complex*	endemic; subaquatic; springs and caves in Medina River, Guadalupe River, and Cibolo Creek watersheds within Edwards Aquifer area	T (State)	Texas	Bexar County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Salamander, Comal blind	*Eurycea tridentifera*	endemic; semi-troglobitic; found in springs and waters of caves	T (State)	Texas	Bexar County
Salamander, Georgetown	*Eurycea naufragia*	endemic; known from springs and waters in and around town of Georgetown in Williamson County	Candidate for Federal Listing	Texas	Williamson County
Salamander, Jollyville	*Eurycea*	known from springs and waters of some caves		Texas	Williamson

Plateau	*tonkawae*	north of the Colorado River			County
Salamander, Jollyville Plateau	*Eurycea tonkawae*	known from springs and waters of some caves north of the Colorado River	Candidate for Federal Listing	Texas	Travis County
Salamander, Pedernales River springs	*Eurycea sp 6*	endemic; known only from springs		Texas	Travis County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Salamander, Salado Springs	*Eurycea chisholmensis*	endemic; surface springs and subterranean waters of the Salado Springs system along Salado Creek	Candidate for Federal Listing	Texas	Bell County
Salamander, Salado Springs	*Eurycea chisholmensis*	endemic; surface springs and subterranean waters of the Salado Springs system along Salado Creek	Candidate for Federal Listing	Texas	Williamson County
Salamander, Texas	*Eurycea neotenes*	endemic; troglobitic; springs, seeps, cave streams, and creek headwaters; often hides under rocks and leaves in water; restricted to Helotes and Leon Creek drainages		Texas	Bexar County
Sand-verbena, Large-fruited	*Abronia macrocarpa*	Texas endemic; restricted to sparse herbaceous vegetation in deep, somewhat excessively drained sands in openings in Post oak woodlands, sometimes in active blowouts; all known sites underlain by sandy Eocene strata; flowering late February-May (-June; also in the fall following periods of high rainfall)	E	Texas	Robertson County
		endemic to Brazos River drainage; also, apparently			

Shiner, Sharpnose	*Notropis oxyrhynchus*	introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	Falls County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Shiner, Sharpnose	*Notropis oxyrhynchus*	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	Johnson County
Shiner, Sharpnose	*Notropis oxyrhynchus*	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	Milam County
Shiner, Sharpnose	*Notropis oxyrhynchus*	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	Robertson County
Shiner, Sharpnose	*Notropis oxyrhynchus*	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	Williamson County
		endemic to Brazos River drainage; also, apparently introduced into adjacent	Candidate		

Shiner, Sharpnose	*Notropis oxyrhynchus*	Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	for Federal Listing	Texas	Burleson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Shiner, Sharpnose	*Notropis oxyrhynchus*	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	Hill County
Shiner, Sharpnose	*Notropis oxyrhynchus*	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	Candidate for Federal Listing	Texas	McLennan County
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Falls County
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably	Candidate for Federal Listing	Texas	Johnson County

		eats small aquatic invertebrates			
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Milam County

T - Threatened
E - Endangered

Northern Zone 6 - 86

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Travis County
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Burleson County
		endemic to upper Brazos River system and its tributaries (Clear Fork and			

Shiner, Smalleye	*Notropis buccula*	Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Hill County
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	McLennan County
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy	Candidate for Federal Listing	Texas	Williamson County

		substrate and turbid to clear warm water; presumably eats small aquatic invertebrates			
Shiner, Smalleye	*Notropis buccula*	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	Candidate for Federal Listing	Texas	Bell County
Shrew, Elliot's short-tailed	*Blarina hylophaga hylophaga*	sandy areas in live oak mottes, grassy areas with a Loblolly pine (Pinus taeda) overstory, and grassy areas near Post oak (Quercus stellata) stands; burrows extensively under leaf litter, logs, and into soil, but ground cover is not required; needs soft damp soils for ease of burrowing		Texas	Bastrop County
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Lee County
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Milam County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		catholic; open fields,			

Skunk, Plains spotted	*Spilogale putorius interrupta*	prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Tarrant County
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Bastrop County
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Hill County
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	McLennan County
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Skunk, Plains spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Travis County
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy		Texas	Williamson County

		areas and tallgrass prairie			
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Bell County
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Bexar County
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Burleson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Caldwell County
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Falls County
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Fayette County
Skunk,	*Spilogale*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest			Gonzales

Plains Spotted	*putorius interrupta*	edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	County
Skunk, Plains Spotted	*Spilogale putorius interrupta*	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		Texas	Guadalupe County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Snail, Palmetto pill	*Euchemotrema leai cheatumi*	terrestrial snail with only one known population, from moist palmetto woodlands of Palmetto State Park; 1/4 - 3/8 inches long; distinguishable by a small ridge seen in the opening of the shell		Texas	Gonzales County
Snake, Brazos water	*Nerodia harteri*	upper Brazos River drainage; in shallow water with rocky bottom and on rocky portions of banks	T (State)	Texas	Hill County
Snake, Brazos water	*Nerodia harteri*	upper Brazos River drainage; in shallow water with rocky bottom and on rocky portions of banks	T (State)	Texas	Johnson County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Caldwell County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds		Texas	Guadalupe County

		March-August			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Johnson County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	McLennan County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Tarrant County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Williamson County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Bell County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Bastrop County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Bexar County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Falls County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Hill County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Lee County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Milam County
Snake, Texas garter	*Thamnophis sirtalis annectens*	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		Texas	Travis County
Snake, Texas Indigo	*Drymarchon melanurus erebennus*	Texas south of the Guadalupe River and Balcones Escarpment; thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter	T (State)	Texas	Bexar County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Burleson County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and		Texas	Caldwell County

		brambles; a key component is bare ground for running/walking			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Falls County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Fayette County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Gonzales County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Johnson County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component		Texas	McLennan County

		is bare ground for running/walking			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Robertson County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Bastrop County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Bell County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Hill County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for		Texas	Lee County

		running/walking			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Milam County
Sparrow, Henslow's	*Ammodramus henslowii*	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		Texas	Tarrant County
Spectaclecase, Little	*Villosa lienosa*	creeks, rivers, and reservoirs, sandy substrates in slight to moderate current, usually along the banks in slower currents; east Texas, Cypress through San Jacinto River basins		Texas	Tarrant County
Spider, Bandit Cave	*Cicurina bandida*	very small, subterrestrial, subterranean obligate		Texas	Williamson County
Spider, Bandit Cave	*Cicurina bandida*	very small, subterrestrial, subterranean obligate		Texas	Travis County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Spider, Government Canyon Bat Cave	*Neoleptoneta microps*	small, eyeless, or essentially eyeless spider; karst features in north and northwest Bexar County	E (Federal)	Texas	Bexar County
Spider, Tooth Cave	*Neoleptoneta myopica*	very small, cave-adapted, sedentary spider	E (Federal)	Texas	Travis County
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Falls County
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Caldwell County
Stork,	*Mycteria*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries);	T (State)	Texas	Milam

Wood	*americana*	breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960			County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Bastrop County
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in	T (State)	Texas	Bexar County

		search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960			
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Burleson County
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Fayette County
		forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water;			

Stork, Wood	*Mycteria americana*	usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Gonzales County

T - Threatened
E - Endangered

Northern Zone 6 - 100

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Guadalupe County
		forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall			

Stork, Wood	*Mycteria americana*	snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Hill County
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Lee County
Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	McLennan County

Stork, Wood	*Mycteria americana*	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960	T (State)	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Sturgeon, Shovelnose	*Scaphirhynchus platorynchus*	open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande	T (State)	Texas	Tarrant County
Sucker, Blue	*Cycleptus elongatus*	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Burleson County
		larger portions of major			

Sucker, Blue	*Cycleptus elongatus*	rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Fayette County
Sucker, Blue	*Cycleptus elongatus*	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Milam County
Sucker, Blue	*Cycleptus elongatus*	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		larger portions of major rivers in Texas; usually in channels and flowing pools			

Sucker, Blue	*Cycleptus elongatus*	with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Bastrop County
Sucker, Blue	*Cycleptus elongatus*	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Caldwell County
Sucker, Blue	*Cycleptus elongatus*	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles	T (State)	Texas	Gonzales County
Sunflower, Shinner's	*Helianthus occidentalis ssp plantagineus*	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		Texas	Fayette County
Sunflower, Shinner's	*Helianthus occidentalis ssp plantagineus*	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		Texas	Bastrop County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON	SCIENTIFIC	HABITAT	STATUS	STATE	COUNTY

NAME	NAME				
Sunflower, Shinner's	*Helianthus occidentalis ssp plantagineus*	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		Texas	Lee County
Sunflower, Shinner's	*Helianthus occidentalis ssp plantagineus*	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		Texas	Caldwell County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Bexar County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Burleson County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a	E	Texas	Falls County

		few hundred feet of colony			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Fayette County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Bastrop County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Guadalupe County
		subspecies is listed only			

Tern, Interior Least	*Sterna antillarum athalassos*	when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Hill County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Lee County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Robertson County
		subspecies is listed only when inland (more than 50 miles from a coastline);			

Tern, Interior Least	*Sterna antillarum athalassos*	nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Travis County
Tern, Interior least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Bell County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Gonzales County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	McLennan County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Johnson County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Milam County
Tern, Interior Least	*Sterna antillarum athalassos*	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	E	Texas	Tarrant County
		endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent			

Toad, Houston	*Anaxyrus houstonensis*	uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations	E	Texas	Burleson County
Toad, Houston	*Anaxyrus houstonensis*	endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations	E	Texas	Lee County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Toad, Houston	*Anaxyrus houstonensis*	endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations	E	Texas	Robertson County
Toad, Houston	*Anaxyrus houstonensis*	endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw,	E	Texas	Bastrop County

		Weches, and Willis geologic formations			
Toad, Houston	*Anaxyrus houstonensis*	endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations	E	Texas	Milam County
Tortoise, Texas	*Gopherus berlandieri*	open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November	T (State)	Texas	Guadalupe County
Tortoise, Texas	*Gopherus berlandieri*	open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November	T (State)	Texas	Bexar County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		open brush with a grass understory is preferred; open grass and bare ground			

Tortoise, Texas	*Gopherus berlandieri*	are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November	T (State)	Texas	Gonzales County
Turtle, Alligator Snapping	*Macrochelys temminckii*	perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October	T (State)	Texas	Burleson County
Turtle, Alligator Snapping	*Macrochelys temminckii*	perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October	T (State)	Texas	Robertson County
Turtle, Alligator Snapping	*Macrochelys temminckii*	perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October	T (State)	Texas	Falls County
		perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds			

Turtle, Alligator Snapping	*Macrochelys temminckii*	near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October	T (State)	Texas	Milam County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Turtle, Cagle's Map	*Graptemys caglei*	endemic; Guadalupe River System; short stretches of shallow water with swift to moderate flow and gravel or cobble bottom, connected by deeper pools with a slower flow rate and a silt or mud bottom; gravel bar riffles and transition areas between riffles and pools especially important in providing insect prey items; nest on gently sloping sand banks within ca. 30 feet of water's edge	T (State)	Texas	Gonzales County
Turtle, Cagle's Map	*Graptemys caglei*	endemic; Guadalupe River System; short stretches of shallow water with swift to moderate flow and gravel or cobble bottom, connected by deeper pools with a slower flow rate and a silt or mud bottom; gravel bar riffles and transition areas between riffles and pools especially important in providing insect prey items; nest on gently sloping sand banks within ca. 30 feet of water's edge	T (State)	Texas	Guadalupe County

Twistflower, Bracted	*Streptanthus bracteatus*	Texas endemic; shallow, well-drained gravelly clays and clay loams over limestone in oak juniper woodlands and associated openings, on steep to moderate slopes and in canyon bottoms; several known soils include Tarrant, Brackett, or Speck over Edwards, Glen Rose, and Walnut geologic formations; populations fluctuate widely from year to year, depending on winter rainfall; flowering mid April-late May, fruit matures and foliage withers by early summer		Texas	Travis County
Twistflower, Bracted	*Streptanthus bracteatus*	Texas endemic; shallow, well-drained gravelly clays and clay loams over limestone in oak juniper woodlands and associated openings, on steep to moderate slopes and in canyon bottoms; several known soils include Tarrant, Brackett, or Speck over Edwards, Glen Rose, and Walnut geologic formations; populations fluctuate widely from year to year, depending on winter rainfall; flowering mid April-late May, fruit matures and foliage withers by early summer		Texas	Bexar County
Vireo, Black-capped	*Vireo atricapilla*	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved	E	Texas	Bexar County

		shrubs, foliage to ground level, and required structure; nesting season March-late summer			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Vireo, Black-capped	*Vireo atricapilla*	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	E	Texas	Travis County
Vireo, Black-capped	*Vireo atricapilla*	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	E	Texas	Johnson County

Vireo, Black-capped	*Vireo atricapilla*	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	E	Texas	Williamson County
Vireo, Black-capped	*Vireo atricapilla*	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	E	Texas	Bell County
Warbler, Golden-cheeked	*Dendroica chrysoparia*	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-	E	Texas	Bell County

		early summer			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Warbler, Golden-cheeked	*Dendroica chrysoparia*	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	E	Texas	Hill County
Warbler, Golden-cheeked	*Dendroica chrysoparia*	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	E	Texas	McLennan County
Warbler, Golden-	*Dendroica*	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees	E	Texas	Williamson

cheeked	*chrysoparia*	other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer			County
Warbler, Golden-cheeked	*Dendroica chrysoparia*	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	E	Texas	Bexar County
Warbler, Golden-cheeked	*Dendroica chrysoparia*	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	E	Texas	Johnson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		juniper-oak woodlands;			

Warbler, Golden-cheeked	*Dendroica chrysoparia*	dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	E	Texas	Travis County
Wild-mercury, Hill Country	*Argythamnia aphoroides*	Texas endemic; mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and clay loams over limestone on rolling uplands, also in partial shade of oak-juniper woodlands in gravelly soils on rocky limestone slopes; flowering April-May with fruit persisting until midsummer		Texas	Bexar County
Wolf, Gray	*Canis lupus*	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	E	Texas	Bexar County
Wolf, Gray	*Canis lupus*	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	E	Texas	Johnson County
Wolf, Gray	*Canis lupus*	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	E	Texas	Tarrant County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY

Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Caldwell County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Lee County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Milam County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Tarrant County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Williamson County

T - Threatened
E - Endangered

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6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Bell County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested	E	Texas	Bexar County

		areas, as well as coastal prairies			
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Burleson County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Fayette County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Gonzales County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Guadalupe County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Hill County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Johnson County
		extirpated; formerly known throughout			

Wolf, Red	*Canis rufus*	eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	McLennan County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Robertson County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Travis County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Bastrop County
Wolf, Red	*Canis rufus*	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	E	Texas	Falls County
Woollywhite, Sandhill	*Hymenopappus carrizoanus*	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June		Texas	Bastrop County
Woollywhite,	*Hymenopappus*	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands		Texas	Bexar

Sandhill	*carrizoanus*	derived from the Carrizo Sand and similar Eocene formations; flowering April-June			County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Woollywhite, Sandhill	*Hymenopappus carrizoanus*	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June		Texas	Guadalupe County
Woollywhite, Sandhill	*Hymenopappus carrizoanus*	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June		Texas	Caldwell County
Woollywhite, Sandhill	*Hymenopappus carrizoanus*	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June		Texas	Robertson County
Yucca, Glen Rose	*Yucca necopina*	Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June		Texas	Tarrant County

T - Threatened
E - Endangered

Reference:
- Texas Parks & Wildlife Dept. - Annotated County Lists of Rare Species

6.6 SENSITIVITY MAPS

Click here for Northern Zone Overview Map

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001030 - San Antonio to Austin, 16in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001030 - San Antonio to Austin, 16in. B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001030 - San Antonio to Austin, 16in. B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001031 - Mustang Ridge Lateral, 8in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. B-4

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. B-4

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. B-5

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002021 - Bastrop Lateral, 8in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002030 - Waco to Waco Remote Trap, 16in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002040 - Waco Remote Trap to Ft. Worth, 14in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002040 - Waco Remote Trap to Ft. Worth, 14in. B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60002040 - Waco Remote Trap to Ft. Worth, 14in. B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60005010 - DFW, 8in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60201010 - SWPL to Star, 8in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60203010 - Southlake Pipeline, 12in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60204010 - KPLP Eth - US Development to FHR, 10in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60510010 - Mayo Jct. To East White Point, 10in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60601010 - Hearne To Shaft, 6in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60601020 - Shaft To Gerdes, 6in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60601030 - Gerdes To Three-Way, 6in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60601030 - Gerdes To Three-Way, 6in. B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60601040 - Three-Way To Rosanky, 8in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60602010 - Caldwell, 6in. B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 60603010 - Westpoint To Three Way, 6in. B-1

6.7 TACTICAL PLAN INDEX

SITE #	SITE NAME
No Tactical Plans Available, at this time.	
Site 1	NA

6.8 TACTICAL MAPS

Click here for 60001030 - San Antonio to Austin, 16in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001030 - San Antonio to Austin, 16in. (Colorado River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001030 - San Antonio to Austin, 16in. (Guadalupe River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001030 - San Antonio to Austin, 16in. (San Marcos River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001031 - Mustang Ridge Lateral, 8in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. (Brazos River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. (Little River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60001040 - Austin to Waco, 16in. (San Gabriel River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. (Colardo River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. (Little River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002020 - Gonzales to Waco, 18in. (San Gabriel River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002021 - Bastrop Lateral, 8in. River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002030 - Waco to Waco Remote Trap, 16in. River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002040 - Waco Remote Trap to Ft. Worth, 14in. River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 60002040 - Waco Remote Trap to Ft. Worth, 14in. (West Fork Trinity River)

6.8 TACTICAL MAPS, CONTINUED

Click here for 60005010 - DFW, 8in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60201010 - SWPL to Star, 8in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60203010 - Southlake Pipeline, 12in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60204010 - KPLP Eth - US Development to FHR, 10in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60510010 - Mayo Jct. To East White Point, 10in. Overview Map

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60601010 - Hearne To Shaft, 6in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60601010 - Hearne To Shaft, 6in. (Brazos River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60601020 - Shaft To Gerdes, 6in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60601030 - Gerdes To Three-Way, 6in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60601030 - Gerdes To Three-Way, 6in. (Colorado River Detail)

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60601040 - Three-Way To Rosanky, 8in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60602010 - Caldwell, 6in. River Overview

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6.8 TACTICAL MAPS, CONTINUED

Click here for 60603010 - Westpoint To Three Way, 6in. River Overview

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6.9 TACTICAL PLANS

Click here for No Tactical Plans Available, at this time. - Site 1 - NA

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6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	(b) (7)(F)
Northern Zone			
UNKNOWN	Bastrop	Gonzales to Waco, 18in.	
UNKNOWN	Bastrop	Gonzales to Waco, 18in.	
UNKNOWN	Bastrop	Gonzales to Waco, 18in.	
S 21	Bastrop	Gonzales to Waco, 18in.	
S 21	Bastrop	Gonzales to Waco, 18in.	
S 304	Bastrop	Gonzales to Waco, 18in.	

			(b) (7)(F)
U 290	Bastrop	Gonzales to Waco, 18in.	
S 95	Bastrop	Gonzales to Waco, 18in.	
S 95	Bastrop	Three-Way To Rosanky, 8in.	
Colorado River	Bastrop	Gonzales to Waco, 18in.	
At and SF Railroad	Bell	Austin to Waco, 16in.	
S 53	Bell	Gonzales to Waco, 18in.	
U 190	Bell	Austin to Waco, 16in.	
S 53	Bell	Austin to Waco, 16in.	
Little River	Bell	Austin to Waco, 16in.	
SP Railroad	Bexar	SWPL to Star, 8in.	
SP Railroad	Bexar	SWPL to Star, 8in.	
SP Railroad	Bexar	San Antonio to Austin, 16in.	
I 410	Bexar	San Antonio to Austin, 16in.	
I 410	Bexar	San Antonio to Austin, 16in.	
I 10	Bexar	SWPL to Star, 8in.	
I 10	Bexar	SWPL to Star, 8in.	
UNK	Bexar	SWPL to Star, 8in.	
UNK	Bexar	SWPL to Star, 8in.	
I 410	Bexar	SWPL to Star, 8in.	
I 410	Bexar	SWPL to Star, 8in.	
UNK	Bexar	San Antonio to Austin, 16in.	
I 10	Bexar	San Antonio to Austin, 16in.	
I 10	Bexar	San Antonio to Austin, 16in.	
I 410	Bexar	San Antonio to Austin, 16in.	

(b) (7)(F)

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	GPS LOCATION / COMMENTS
Northern Zone			
I 410	Bexar	San Antonio to Austin, 16in.	(b) (7)(F)
At and SF Railroad	Burleson	Shaft To Gerdes, 6in.	
Southern Pacific Railroad	Burleson	Shaft To Gerdes, 6in.	
S 36	Burleson	Shaft To Gerdes, 6in.	
S 21	Burleson	Hearne To Shaft, 6in.	
Brazos River	Burleson	Hearne To Shaft, 6in.	
UNKNOWN	Caldwell	San Antonio to Austin, 16in.	
S 80	Caldwell	San Antonio to Austin, 16in.	
U 183	Caldwell	San Antonio to Austin, 16in.	
S 142	Caldwell	San Antonio to Austin, 16in.	
S 21	Caldwell	San Antonio to Austin, 16in.	
S 304	Caldwell	Rosanky To Nixon, 8in.	
San Marcos River	Caldwell	San Antonio to Austin, 16in.	
S 7	Falls	Gonzales to Waco, 18in.	
U 77	Falls	Gonzales to Waco, 18in.	
U 77	Falls	Austin to Waco, 16in.	
S 7	Falls	Austin to Waco, 16in.	
UNKNOWN	Fayette	Gerdes To Three-Way, 6in.	
UNKNOWN	Fayette	Gerdes Loop, 6in.	
S 71	Fayette	Gerdes To Three-Way, 6in.	

S 71	Fayette	Gerdes To Three-Way, 6in.	(b) (7)(F)
S 71	Fayette	Gerdes Loop, 6in.	
S 71	Fayette	Gerdes Loop, 6in.	
Colorado River	Fayette	Gerdes To Three-Way, 6in.	
Colorado River	Fayette	Gerdes Loop, 6in.	
UNKNOWN	Gonzales	Gonzales to Waco, 18in.	
UNKNOWN	Gonzales	Rosanky To Nixon, 8in.	
UNKNOWN	Gonzales	Rosanky To Nixon, 8in.	
U 90	Gonzales	Gonzales to Waco, 18in.	
U 183	Gonzales	Rosanky To Nixon, 8in.	

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	GPS LOCATION / COMMENTS
Northern Zone			
U 90	Gonzales	Rosanky To Nixon, 8in.	(b) (7)(F)
UA 90	Gonzales	Rosanky To Nixon, 8in.	
S 97	Gonzales	Rosanky To Nixon, 8in.	
S 80	Gonzales	Rosanky To Nixon, 8in.	
I 10	Gonzales	Rosanky To Nixon, 8in.	
I 10	Gonzales	Rosanky To Nixon, 8in.	
San Marcos River	Gonzales	Rosanky To Nixon, 8in.	
Guadalupe River	Gonzales	Rosanky To Nixon, 8in.	
UNKNOWN	Guadalupe	San Antonio to Austin, 16in.	
S 46	Guadalupe	San Antonio to Austin, 16in.	
S 123	Guadalupe	San Antonio to Austin,	

		16in.	(b) (7)(F)
Guadalupe River	Guadalupe	San Antonio to Austin, 16in.	
Missouri-Kansas-Texas Railroad	Hill	Waco Remote Trap to Ft. Worth, 14in.	
U 77	Hill	Waco Remote Trap to Ft. Worth, 14in.	
I 35e	Hill	Waco Remote Trap to Ft. Worth, 14in.	
I 35e	Hill	Waco Remote Trap to Ft. Worth, 14in.	
S 171	Hill	Waco Remote Trap to Ft. Worth, 14in.	
S 22	Hill	Waco Remote Trap to Ft. Worth, 14in.	
Railroad	Johnson	Waco Remote Trap to Ft. Worth, 14in.	
Railroad	Johnson	Waco Remote Trap to Ft. Worth, 14in.	
U 67	Johnson	Waco Remote Trap to Ft. Worth, 14in.	
UNKNOWN	Lee	Gerdes To Three-Way, 6in.	
U 290	Lee	Gerdes To Three-Way, 6in.	
U 77	Lee	Gerdes To Three-Way, 6in.	
UNKNOWN	McLennan	Gonzales to Waco, 18in.	
MP Railroad	McLennan	Gonzales to Waco, 18in.	
MP Railroad	McLennan	Gonzales to Waco, 18in.	
MP Railroad	McLennan	Waco to Waco Remote Trap, 16in.	
MP Railroad	McLennan	Waco to Waco Remote Trap, 16in.	
MP Railroad	McLennan	Waco to Waco Remote Trap, 16in.	

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	GPS LOCATION / COMMENTS
Northern Zone			
SLSW Railroad	McLennan	Waco to Waco Remote Trap, 16in.	(b) (7)(F)

UNKNOWN	McLennan	Austin to Waco, 16in.	(b) (7)(F)
MP Railroad	McLennan	Austin to Waco, 16in.	
S 484	McLennan	Gonzales to Waco, 18in.	
S 484	McLennan	Gonzales to Waco, 18in.	
S 6	McLennan	Gonzales to Waco, 18in.	
U 84	McLennan	Waco to Waco Remote Trap, 16in.	
SL 340	McLennan	Waco to Waco Remote Trap, 16in.	
SL 340	McLennan	Austin to Waco, 16in.	
S 6	McLennan	Austin to Waco, 16in.	
S 6	McLennan	Austin to Waco, 16in.	
Brazos River	McLennan	Gonzales to Waco, 18in.	
Brazos River	McLennan	Austin to Waco, 16in.	
At and SF Railroad	Milam	Gonzales to Waco, 18in.	
U 190	Milam	Gonzales to Waco, 18in.	
Little River	Milam	Gonzales to Waco, 18in.	
UNKNOWN	Robertson	Hearne To Shaft, 6in.	
UNKNOWN	Robertson	Hearne To Shaft, 6in.	
UNKNOWN	Robertson	Hearne To Shaft, 6in.	
U 190	Robertson	Hearne To Shaft, 6in.	
UNKNOWN	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
Cri and P Railroad	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
M P Railroad	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
S P Railroad	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
T and P R R	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	

Cri and P Railroad	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	(b) (7)(F)
Railroad	Tarrant	Southlake Pipeline, 12in.	
Cri and P Railroad	Tarrant	KPLP Eth - Kinder Morgan to FHR 10in	
UNK	Tarrant	DFW, 8in.	
UNK	Tarrant	DFW, 8in.	

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	GPS LOCATION / COMMENTS
Northern Zone			
UNK	Tarrant	DFW, 8in.	(b) (7)(F)
S 183	Tarrant	DFW, 8in.	
S 183	Tarrant	DFW, 8in.	
S 360	Tarrant	DFW, 8in.	
S 360	Tarrant	DFW, 8in.	
I 820	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
I 20	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
I 20	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
U 287	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
U 287	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
UB 287	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
UNK	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
UNK	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
UNK	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
S 180	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
UNK	Tarrant	Waco Remote Trap to Ft.	

		Worth, 14in.	(b) (7)(F)
I 820	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
I 30	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
I 30	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
UNK	Tarrant	Southlake Pipeline, 12in.	
UNK	Tarrant	Southlake Pipeline, 12in.	
UNK	Tarrant	Southlake Pipeline, 12in.	
UNK	Tarrant	Southlake Pipeline, 12in.	
UNK	Tarrant	Southlake Pipeline, 12in.	
S 121	Tarrant	Southlake Pipeline, 12in.	
S 121	Tarrant	Southlake Pipeline, 12in.	
S 183	Tarrant	Southlake Pipeline, 12in.	
S 183	Tarrant	Southlake Pipeline, 12in.	
S 26	Tarrant	Southlake Pipeline, 12in.	
S 360	Tarrant	Southlake Pipeline, 12in.	

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	GPS LOCATION / COMMENTS
Northern Zone			
S 360	Tarrant	Southlake Pipeline, 12in.	(b) (7)(F)
West Fork Trinity River	Tarrant	Waco Remote Trap to Ft. Worth, 14in.	
SP Railroad	Travis	San Antonio to Austin, 16in.	
U 290	Travis	Austin to Waco, 16in.	
U 290	Travis	Austin to Waco, 16in.	
S 71	Travis	San Antonio to Austin, 16in.	

S 71	Travis	San Antonio to Austin, 16in.	(b) (7)(F)
Colorado River	Travis	San Antonio to Austin, 16in.	
UNKNOWN	Williamson	Gonzales to Waco, 18in.	
UNKNOWN	Williamson	Austin to Waco, 16in.	
UNKNOWN	Williamson	Austin to Waco, 16in.	
U 79	Williamson	Gonzales to Waco, 18in.	
U 79	Williamson	Austin to Waco, 16in.	
S 29	Williamson	Austin to Waco, 16in.	
S 95	Williamson	Austin to Waco, 16in.	
San Gabriel River	Williamson	Gonzales to Waco, 18in.	
San Gabriel River	Williamson	Austin to Waco, 16in.	
Southern Pacific Railroad	Wilson	Rosanky To Nixon, 8in.	
U 87	Wilson	Rosanky To Nixon, 8in.	

SECTION 7 Last revised: December 16, 2012

SUSTAINED RESPONSE ACTIONS

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7.1 Response Resources

7.1.1 Response Equipment

Figure 7.1-1 - Regional Company and Response Contractor's Equipment List / Response Time

7.1.2 Response Equipment Inspection and Maintenance

7.1.3 Contracts, Contractor Equipment, and Labor

7.1.4 Command Post

Figure 7.1-2 - Command Post Checklist

7.1.5 Staging Area

Figure 7.1-3 - Staging Area Checklist

7.1.6 Communications Plan

Figure 7.1-4 - Communications Checklist

7.2 Public Affairs

7.3 Site Security Measures

Figure 7.3-1 - Site Security Checklist

Figure 7.3-2 - Facility Security

7.4 Waste Management

Figure 7.4-1 - Waste Management Flow Chart

Figure 7.4-2 - General Waste Containment and Disposal Checklist

7.4.1 Waste Storage

Figure 7.4-3 - Temporary Storage Methods

SECTION 7
SUSTAINED RESPONSE ACTIONS, CONTINUED

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7.4.2 Waste Transfer

7.4.3 Waste Disposal

Figure 7.4-4 - Facility Specific Disposal Vendors

7.1 RESPONSE RESOURCES

7.1.1 Response Equipment

CATEGORY	TYPE/MODEL	QUANTITY	SIZE	YEAR PURCHASED	OPERATIONAL STATUS	LOCATION AT FACILITY
Koch Pipeline Company (KPL) does not own or operate Oil Spill Response Equipment. KPL relies on OSRO's for emergency response equipment and personnel. See Figure 7.1-1.						

***Note:** Response equipment is tested and deployed as described in **FIGURE A.1-2**, **FIGURE A.1-4**, and **FIGURE A.1-5** of the Spill Response Plan.

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

* USCG Classified OSRO for facility

COMPANY/CONTRACTOR	EQUIPMENT	RESPONSE TIME
*Eagle SWS, (San Antonio) Cibolo, TX	Full Oil and Hazardous Materials response capabilities	1 hours
*TAS Environmental Services, LP (San Antonio) San Antonio, Texas	Full Oil and Hazardous Materials response capabilities	1 hours
*TAS Environmental Services, (Austin) Austin , TX	Full Oil and Hazardous Materials response capabilities	1 hours
*TAS Environmental Services, (Fort Worth) Fort Worth, TX	Full Oil and Hazardous Materials response capabilities	1 hours
*Garner Environmental Services, Inc. (Houston Operations) Deer Park, Texas	Full Oil and Hazardous Materials response capabilities	2 hours
*Miller Environmental Services, Inc. Corpus Christi, TX	Full Oil and Hazardous Materials response capabilities	6 hours

7.1.2 Response Equipment Inspection and Maintenance

Company response equipment is tested and inspected as noted below. The Operations Manager is responsible for ensuring that the following response equipment and testing procedures are implemented. These consist of:

Containment boom During boom deployment exercises, boom will be inspected for signs of structural deficiencies. If tears in fabric or rotting is

observed, boom will be repaired or replaced. In addition, end connectors will be inspected for evidence of corrosion. If severe corrosion is detected, equipment will be repaired or replaced.

Miscellaneous equipment Other response equipment identified in this Plan will be inventoried and tested on a semiannual basis to ensure that the stated quantities are in inventory and in proper working order. The equipment inspections and records are retained for a period of five years. Exercise requirements are listed in **APPENDIX A.1**. A Spill/Exercise Documentation form is in **FIGURE A.1-4**. **FIGURE A.1-5** provides a log for response equipment testing and deployment drills.

7.1.3 Contractors, Contractor Equipment, and Labor

- The Company's primary response contractors' names and phone numbers as well as contact information of other companies who can provide spill response services are provided in **FIGURE 3.1-6** or **FIGURE 3.1-7**.
- The Company has ensured by contract or formal agreements 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 deploy and inspect boom to meet PREP guidelines. Company requires that these exercises be completed annually.
- **APPENDIX B** contains evidence of contracts for the Company's primary response contractors and equipment lists of contractors without USCG classification.

7.1.4 Command Post

In the event of a major spill or other emergency, both an off-site Emergency Operations Center (EOC) and a Command Post may be established. For a minor emergency, only a Command Post may 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	
Positioned outside of the present and potential Hazard Zone.	☐
Positioned away from the general activities such as traffic, noise, and confusion associated with an incident.	☐
Have ability to provide security and to control access to the ICP as necessary.	☐
Adequate space for size of staff.	☐
24-hour accessibility.	☐
Personal hygiene facilities.	☐

Suitability of existing communications resources (phone/fax/radio).	☐
Suitability of private conference and briefing rooms.	☐
Location or building has capability to grow, as necessary.	☐
Notify other parties of Command Post location; provide maps/driving directions.	☐
Determine staging areas and incident base locations.	☐
Identify future need to move or upgrade facilities.	☐

Command Posts for this facility are located at: a location to be determined by proximity to the source of the incident.

7.1.4 Command Post

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

FIGURE 7.1-2 - COMMAND POST CHECKLIST

7.1.5 Staging Area

A Staging Area is a temporary location at an incident where personnel and equipment are kept while awaiting tactical assignments. Staging Areas should be located relatively close to the incident, yet located sufficiently away to provide a safe location for personnel and equipment to await assignments. In an emergency response, numerous staging areas may be required to support containment and cleanup operations.

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

- Accessibility to impacted areas.
- Proximity to secure parking, airports, docks, pier, or boat launches.
- Accessibility to large trucks and trailers which may be used to transfer equipment.
- Be in a large open area in order to provide storage for equipment and not interfere with equipment loading and offloading operations.
- Have different access routes for incoming and outgoing resources from the direct traffic of the incident response, whenever possible.

7.1.5 Staging Area, Continued

- Be conducive for loading and offloading of personnel; consider having moorage available if vessels are required to aid the loading/offloading of personnel.

- Consider the need to incorporate specialty equipment such as ambulance, fire equipment, police cars, etc.

FIGURE 7.1-3 - STAGING AREA CHECKLIST

STAGING AREA CHECKLIST	
Positioned outside of the present and potential Hazard Zone.	☐
Positioned away from the general activities such as traffic, noise, and confusion associated with an incident; whenever possible, identify different access routes.	☐
Have ability to provide security and to control access to the staging area as necessary.	☐
Adequate space for size, amount, and type of equipment being assigned to the area (e.g., boom trailers, skimmers, vacuum trucks, back hoes, frac tanks).	☐
24-hour accessibility, but establish control and assist with check-in/check-out process for equipment and personnel arriving and leaving the Staging Area.	☐
Personal hygiene facilities necessary and available.	☐
Communication process established for calling for and returning equipment; prevent resources from freelancing or “doing their own thing”.	☐
Suitability of existing communications resources (phone/fax/radio).	☐
Staging Area may need to provide a temporary means for fueling; ensure safety and environmental requirements are reviewed.	☐
Notify Command Post of Staging Area location; provide maps/driving directions.	☐
Provide area to form operational units, such as Task Forces or Strike Teams.	☐
Designated areas to avoid confusion between incoming and outgoing equipment versus equipment ready for deployment.	☐

Staging areas for this facility are located at: location(s) to be determined by proximity to the source of the incident.

7.1.6 Communications Plan

Communications include:

- The "hardware" systems that transfer information.
- Planning for the use of all available communications frequencies and resources.
- The processes and procedures for transferring information.
- Computers
- Land Lines
- Cell Phones
- Fax

Company communications for small incidents will be conducted via telephone lines, cellular telephones, PDA's, two way radios, e-mail, and fax machines.

Additional communications equipment (two way radios, VHF portable radios with chargers and accessories, command post with UHF, VHF, single sideband, marine, aeronautical, telephone, and hard-line capability) may be purchased or leased from a communications company in the area. Use of communications equipment, whether purchased or leased, must comply with FCC requirements prior to operation. Communications with government agencies, state police, and contractors will be conducted via telephone lines or cellular phones. As deemed necessary, government agencies responding to an incident on-site will be incorporated into the communications plan. Refer to **FIGURE 7.1-4** for guidelines to setup communications.

The Communications Group Leader is responsible for ensuring that the Incident Command and emergency responders have reliable and effective means of communication by establishing processes and procedures for transferring information. Several communication networks may be considered depending upon the size and complexity of the incident. These may include:

- **Command Net** - Established to link supervisory personnel from Incident Commander down to and including Division and Group supervisors.
- **Tactical Nets** - Established in a variety of ways, e.g., by agency, department, geographical area, or function. Tactical nets may be established for each Branch, or for Divisions and Groups, depending upon hardware and frequency availability and specific incident needs.
- **Support Nets** - Established on larger incidents to handle logistics traffic and resource status changes.
- **Ground-to-Air** - Established to coordinate ground-to-air traffic.
- **Air-to-Air** - Assigned for coordination between aircraft assigned to an incident

This may also involve activation of multiple types of communications equipment and coordination among multiple responding agencies and contractors.

The Communications Plan (if necessary, written at the time of an incident) will identify system, network, channel, telephone numbers, radio frequencies, and assignments to the responders.

FIGURE 7.1-4 - COMMUNICATIONS CHECKLIST

COMMUNICATIONS CHECKLIST	
Develop a Communications Plan; consider communication levels needed.	☐
Phone lines available, consider lines per staff element - contact local provider.	☐
Fax lines available, consider lines per group or unit requirements - contact local provider.	☐
Cell phone coverage providing means to maintain communications.	☐
Company and resource phone list available and being maintained.	
Recharging stations for cellular phones.	☐
VHF radio communications: • Establish frequencies • Assign call signs • Distribute radios	☐

Establish communications schedule	
Recharging stations for VHF radios.	☐
Determine need for VHF repeaters.	☐
Copy machine available.	☐
Internet access available; necessary?	☐
Responders have capability to communicate with aircraft.	☐

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

7.2 PUBLIC AFFAIRS

Company Spokesperson

The Incident Commander shall designate a company spokesperson at the scene and identify the spokesperson to Management and Public Affairs. Such person shall retain spokesperson's duties until relieved of those duties by the Incident Commander. The designated company spokesperson's duties shall include:

- Interaction with the company's Public Affairs Group about the incident and the progress of the Company's response;
- Interaction with the Incident Commander regarding requests for information from media and/or public;
- Interaction with media and/or public, including those who may be directly affected (through evacuation or otherwise) by the incident and/or the Company's response to the incident;
- Dissemination of truthful, complete, and appropriate information in response to requests and/or needs of media and/or public.

Unless designated by the Incident Commander, the Company spokesperson shall not be the principal contact between the company and responding or other appropriate governmental agencies.

The designated Company spokesperson shall have been trained on this section of the Integrated Contingency Plan and shall have received other training regarding the responsibilities of a Company spokesperson prior to his/her appointment as Company spokesperson. Any person who has not received such training shall not be qualified to serve as Company spokesperson.

The designated spokesperson shall notify appropriate personnel from the responding company, contractual responder, and necessary governmental agencies that he/she has been designated by the Incident Commander as the on-scene Company spokesperson and that as the designated spokesperson, he/she is the one and only spokesperson for the Company until advised otherwise. The spokesperson shall also advise responding company and contractual personnel that only the designated on-scene spokesperson should speak with the media and/or public.

Message Verification

Prior to providing any information regarding an incident to the media and/or public in any form, the Company spokesperson must clear the message both factually and contextually with

the Incident Commander. If practical and feasible, the Company spokesperson should also consult with the Legal Department and Public Affairs prior to providing any information to the media and/or public.

If consultation with Public Affairs is not feasible prior to the required release of information, then the Incident Commander and spokesperson shall use the approved media statement example listed below. **This statement is only to be used if a briefing with Legal and Public Affairs is not available.**

Media Statement

This statement is to be used only in the following situations:

- **By the on-scene Company spokesperson designated by the Incident Commander**
- **When Legal Department and Public Affairs consultation is unavailable**

We had an event (*describe incident type/location*). At this time we're working to manage the (*release, fire, etc., OR it is under control*). While we are still checking in with all our employees and others in the area, we believe (*acknowledge whether there are injuries or not*). We have notified local officials, including (*identify responding agencies*) and they are (*offering help or assisting*) as needed. Along with these agencies, we are monitoring the situation closely and will advise of any needed actions (*or, describe advised actions, if any*). As I'm sure you can understand, I must now return to my duties here. We'll have updates as information becomes available through (*identify response spokesperson if known, internal or outside*). Thank you for your patience.

Interviews

The Company spokesperson should refrain from granting on-camera interviews, where practical. If the spokesperson must provide an on-camera interview without a representative of Public Affairs present, then the spokesperson should consult with the Company's Public Affairs Group in preparation for the interview.

(b) (7)(F)



(b) (7)(F)



(b) (7)(F)



7.4 WASTE MANAGEMENT

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

- Worker safety
- Waste minimization
- Minimization of environmental impacts
- Proper management of the recovered materials compliant with regulatory requirements

During the emergency phase of a response, it is important to quickly engage the company waste specialists (Environmental Specialist) or activate a Disposal Group to address potential waste issues.

Depending on the size and complexity of the response, the following action items may be conducted initially during a spill response:

- Development of a Site Safety and Health Plan (**SECTION 5.4**) addressing the proper PPE and waste handling procedures
- Development of a Disposal Plan (**SECTION 5.6**) in accordance with any federal, state, and/or local regulations. Facility-specific disposal locations for different types of materials are listed in **FIGURE 7.4.4**.

Potential waste management issues to consider:

- Type of waste being generated and collected
- Organization of waste collection, segregation, and storage
- Available storage to hold waste being generated
- Handling and storage requirements of recovered product
- Labeling and inspection of temporary storage areas and waste containers
- Continuous tracking of recoverable materials versus non-recoverable to better estimate amount of waste that could be generated over the short and long-term
- Review requirements for secondary containment for waste collection containers
- Regulatory review of applicable laws to ensure compliance and (if appropriate) provide agency notification or obtain permits associated with short and long term storage of generated waste
- Regulatory review of applicable laws to ensure compliance and (if appropriate) obtain permits associated with the transportation of generated waste
- Registered transportation resources along with approved treatment, storage, or disposal facilities
- Disposal of all waste in a safe and approved manner
- Documentation of all waste handling, testing, inspection, and disposal activities

Activities associated with waste minimization during cleanup and recovery are:

- Reusing materials when possible
- Recycling or reclaiming waste
- Segregating waste (hazardous versus non-hazardous or heavily impacted versus slightly impacted)
- Treating waste, in accordance with the regulations and permits, to reduce hazards or reducing amount of waste generated

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

A general flow chart for waste management guidelines is provided in **FIGURE 7.4-1**. An overall checklist for containment and disposal is provided in **FIGURE 7.4-2**.

FIGURE 7.4-1 - WASTE MANAGEMENT FLOW CHART

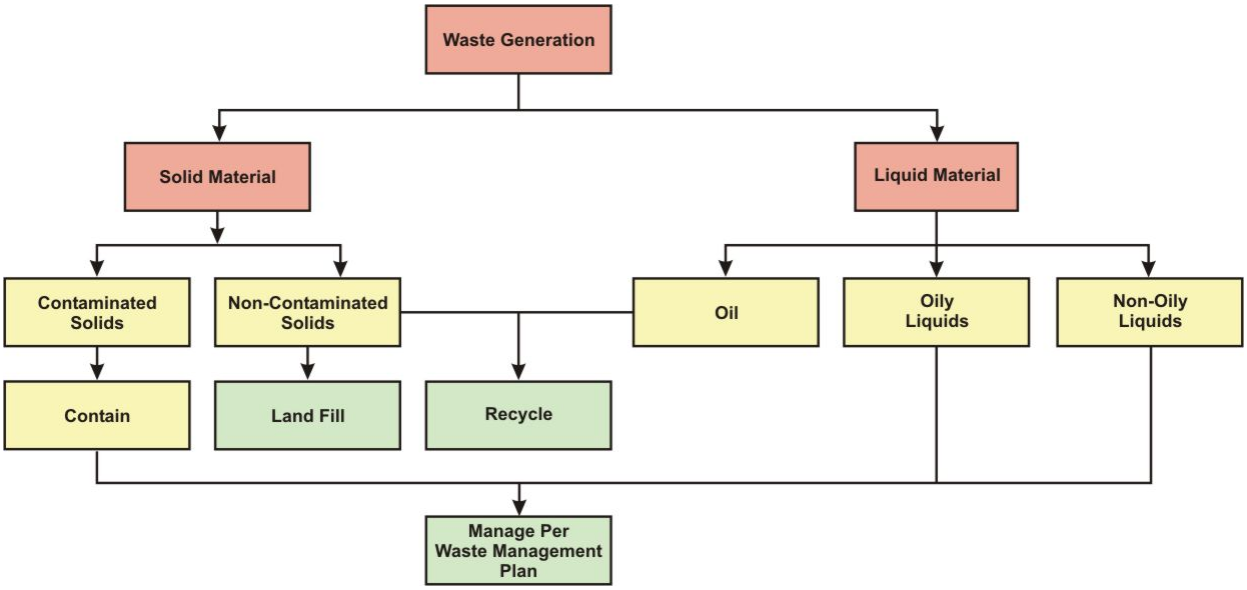


FIGURE 7.4-2 - GENERAL WASTE CONTAINMENT AND DISPOSAL CHECKLIST

CONSIDERATION	
Has the appropriate waste manager been contacted?	☐
Has each container been labeled?	☐
Waste handling process implement are based on the material being recovered (e.g., whether a waste or reusable product)?	☐
Has recovered material been containerized and secured?	☐
Has each of the discrete waste streams been identified?	☐
Has a representative sample of each waste stream requiring analysis been collected?	☐
Has the sample been sent to a 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?	☐
The transporter(s) being used to transport hazardous or nonhazardous waste are properly registered as required by Federal, State, or Local requirements?	☐
Local requirements?	☐
Is the waste being taken to an approved disposal site?	☐
Is the manifest/Bill of Lading properly Completed?	☐
Consider if permits are required?	☐

7.4.1 Waste 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 7.4-3. If storage containers such as drums are used, the container should be clearly marked and labeled to indicate the type of material or waste contained. All on-site accumulation or storage activities shall be conducted by permitted facilities in accordance with applicable state and EPA requirements.

Use of an off-site storage may depend on the approval of State and Local authorities. Consider the following elements affecting the choice of a potential storage site:

- Geology
- Soil
- Surface water
- Covered materials
- Climatic factor
- Emissions
- Odor concerns
- Access
- Ground water
- Flooding
- Slope
- Capacity
- Land use
- Security
- Public contact

FIGURE 7.4-3 - TEMPORARY STORAGE METHODS

CONTAINMENT	PRODUCT						
	OIL	OIL/WATER	OIL/SOIL	OIL/DEBRIS (Small)	OIL/DEBRIS (Medium)	OIL/DEBRIS (Large)	CAPACITY
Drums	X	X	X	X			0.2-0.5 yd^3
Bags			X	X			1.0-2.0 yd^3

Boxes			X	X			1-5 yd^3
Roll top rolloff	X		X	X	X	X	15-25 yd^3
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	1 yd^3
Bladders	X	X					25-1,500 gal

7.4.2 Waste Transfer

In most oil spill response operations, it may be necessary to transfer recovered oil and oil debris from one point to another several times before the oil and oily debris are ultimately disposed of at a state approved disposal site. Depending on the location of response operations, any or all of the following transfer operations may occur:

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

There are two general classes of transfer systems that could be employed for effective oily waste transfer operations. The following is a brief description of some transfer systems:

Vacuum Systems

Vacuum systems, such as air conveyors, vacuum trucks, and portable vacuum units, may be used to transfer viscous oils and debris but they usually pick up a very high water/oil ratio.

Wheeled Vehicles
Wheeled vehicles may be used to transfer liquid waste of oily debris to storage or disposal sites. These vehicles are readily available but have a limited rate (i.e., 100 bbls) and require good site access. All waste transfer activities shall be conducted by licensed transporter and carriers in accordance with applicable EPA and DOT requirements.

7.4.3 Waste Disposal

Waste must be disposed of in accordance with Federal and State requirements. Each incident should be reviewed carefully to ensure that appropriate disposal techniques are employed.

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

Recycling
Recycling involves processing discarded materials for another use.

Incineration
This technique entails the destruction of the recovered oil by high temperature thermal oxidation reactions. There are licensed incineration facilities as well as portable incinerators that may be brought to a spill site. Incineration may require the approval of the local Air Pollution Control Authority.

In Situ Burning/Open Burning
Burning techniques entail igniting oil or oiled debris allowing it to burn under ambient conditions. These disposal techniques are subject to restrictions and permit requirements established by Federal, State, and Local laws.

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

Landfill Disposal
This technique entails burying the recovered oil in an approved landfill in accordance with regulatory procedures. Landfill disposal of free liquids is prohibited by Federal Law in the United States. All disposal activities shall be conducted by permitted disposal facilities in accordance with applicable state and EPA requirements.

FIGURE 7.4-4 - FACILITY SPECIFIC DISPOSAL VENDORS

MATERIAL	DISPOSAL FACILITY	LOCATION
	KPL M260.010 Waste Management Program Manual outlines the	KPL M260.010 Waste Management Program Manual Section 6 Treatment, Storage,

Recovered Product	processes for managing compliance requirements triggered by the generation of Waste at KPL Owned and / or Operated assets.	and Disposal Facility (TSDF) outlines the process for selecting and vetting TSDF's for KPL Owned and/or operated assets.
Contaminated Soil	Same as Recovered Product.	Same as Recovered Product.
Contaminated Equipment	Same as Recovered Product.	Same as Recovered Product.
Personnel Protective Equipment	Same as Recovered Product.	Same as Recovered Product.
Decontamination Solutions	Same as Recovered Product.	Same as Recovered Product.
Adsorbents and Spent Chemicals	Same as Recovered Product.	Same as Recovered Product.

SECTION 8 Last revised: February 2006

DEMOBILIZATION / POST-INCIDENT REVIEW

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8.1 Closure and Termination of the Response

8.2 Demobilization

Figure 8.2-1 - Demobilization Checklist

8.3 Post-Incident Review

Figure 8.3-1 - Root Cause Analysis Form

Figure 8.3-2 - Post Accident Review Form

8.3.1 Final Spill Cleanup Report

8.1 CLOSURE AND TERMINATION OF THE RESPONSE

In these stages, the cleanup may have reached a level of resolve satisfactory to the ICS or UCS (Unified Incident Command comprising of Federal, State, and Local agencies). However, considering the size and complexity of the event, it is possible for the cleanup to reach closure, but termination may require follow-up actions.

Closure and termination issues to consider:

- The IMT (ICS / UCS) determine each area is clean before halting cleanup operations.
- Demobilization Plan, entering final stages prioritizing the removal of equipment and personnel.
- Equipment may need both maintenance and decontamination before being demobilized.
- Facilities (staging area, Command Post, etc.) are being shut down anticipating termination of operations.
- Determine what documentation should be maintained, where, and for how long.
- Safety Plans and safety equipment are being adjusted; heightened awareness is required as the event approaches closure and termination.
- If employed, utilize the IAP to document and demonstrate agreement between the ICS / UCS (RP and Agencies) and any conditions established for the closure or termination of the event.
- Document activities that 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

Developing a Demobilization Plan may considerably improve the efficiency and effectiveness of the demobilization process (**SECTION 5.8**). A Demobilization Checklist is provided in **FIGURE 8.2-1**.

FIGURE 8.2-1 - DEMOBILIZATION CHECKLIST

DEMOBILIZATION CHECKLIST	
Assign personnel to identify surplus resources and probable release times.	☐
Work with Operational and Planning Group leaders to 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

A Post-Incident review will be conducted for significant Incidents. The review shall be scaled to fit the seriousness and complexity of the incident and conducted in a timely manner. The purpose of the review is to thoroughly and objectively examine the incident based on the known facts and to determine a potential root cause using a systematic process to identify the cause of the incident.

The review must be conducted with the overall objectives of ensuring:

- Information Collection
- Team review, scaled to the complexity of the event
- Root Cause Analysis, (one member of the team must be knowledgeable in RCA methods, **FIGURE 8.3-1**)
- Identified and assigned action items
- Analysis and corrective action acceptance

FIGURE 8.3-1 - ROOT CAUSE ANALYSIS FORM

ROOT CAUSE ANALYSIS FORM	Lynx Incident ID#
SECTION I: RCA Information	
List all Root Cause Analysis Team Members (At a minimum, the employee and supervisor must be members of the Root Cause Analysis team).	
Employee Name:	Investigation Team Leader:
Supervisor:	Additional Team Members:
Description of Incident:	
Location of Incident:	Date of Incident:

Location of RCA	Date of RCA:

RCA Methodology: ☐ Fishbone ☐ Tap Root™ ☐ Three Whys ☐ What If

SECTION II: Root Cause Categories

Select 2-3 main causal factors identified by the RCA for the incident. For those selected, note the conditions or facts discovered by the RCA for that factor. (Use Root Cause Guidelines to determine the categories that apply).

Procedure		**Equipment**		**Management Systems**		**Individual Performance**	
	Not used or followed		PM needs improvement		Standards, policy or admin. controls need improvement		Adverse work environment (such as hot, humid or
	Followed incorrectly		Repeat failure		Audit and inspections need improvement		Excessive fatigue or personal factor
	Wrong procedures		Design		Standards, policy or admin. controls not used		Accumulative effects
	Not Available		Equipment defect		Change Management		Knowledge performance
			Tolerable failure		Corrective action		Employee machine interface needs improvement - Labels
Notes:		Notes:		Notes:			Employee machine interface needs improvement - Tools
							Employee machine interface needs improvement - Work arrangement
							Employee machine interface needs improvement - Excessive lifting

Work Site Administration		**Training**		**Communications**		
	Job preparation needs improvement		Training materials need improvement		Communication hand-off	Notes:
	Selection of worker needs improvement		Training not understood		Communication not timely	

	Enforcement of policy or procedure needs improvement		No training provided		No communication	
	Feedback during work needs improvement				Misunderstood communication	
Notes:			Notes:		Notes:	

FIGURE 8.3-1 - ROOT CAUSE ANALYSIS FORM, CONTINUED

ROOT CAUSE ANALYSIS FORM, CONTINUED	Lynx Incident ID#

SECTION III: Problem Solving Process

Mark the symptoms that best describe the causal factors from Section II. Use the problem solving guidelines to determine the symptoms that apply).

Vision		**Decision Rights**		**Virtues & Talents**		**Incentives**		**Knowledge Systems**	
	Lack of shared direction		Things slip through cracks		Violations of Principles		Lack of accountability		Information not shared
	No clear sense of priorities		Turf wars, slow decisions		Poor work ethic		Short term behavior		Poor feedback system
	Hidden agendas		Finger pointing		Arrogance		Optimizing parts vs. whole		Poor economic and critical thinking
	Low energy		Unsure who is responsible		Victim mentality		Low morale/trust problems		Not learning or improving
	People working on wrong things		Task vs. results oriented		Not a team player		Excessive focus on individual scorecards		Poor measures
	Status quo		Poor delegation		Environment not open		Wrong behavior		Repeated mistakes
	Fire fighting		Tragedy of the		Excessive				

			Commons		politics				
			Limited risk-taking		Hierarchy				

SECTION IV: Investigation Notes
Root Cause and Impact (What did you learn?)

SECTION V: Action Items Generated and Responsibilities (Must be present to be a responsible party)	
1.	
Target date:	Responsible Party:
2.	
Target date:	Responsible Party:
3.	
Target date:	Responsible Party:
4.	
Target date:	Responsible Party:
5.	
Target date:	Responsible Party:
6.	
Target date:	Responsible Party:
7.	
Target date:	Responsible Party:
8.	
Target date:	Responsible Party:

Enter the Lynx Incident ID# on each page of this form.

Provide supporting documentation and additional comments if necessary.

Based on the size, seriousness, and complexity of the event, the Post-Incident Review may include or schedule a separate review to evaluate the Company's ability to:

- Follow notification procedures
- Employ staff mobilization procedures
- Operate within the response management system described in the Plan

Follow response methods described in the Plan
- Contact and effectively utilize response equipment or contractors listed in the Plan
- Document the response actions taken

The purpose of the review is to review the efficiency and effectiveness of the response as well as identify actual or potential deficiencies in the Plan (**FIGURE A.1-4**). Appropriate changes to programs, procedures, and operations will be made based on the results of the review.

The Compliance Manager or designee is responsible for reviewing and incorporating post-drill evaluation improvements into the Plan when these improvements materially affect the Plan.

In the event of a PHMSA reportable incident, complete the Post-Accident Review Form (**FIGURE 8.3-2**).

FIGURE 8.3-2 - POST-ACCIDENT REVIEW FORM

(To be performed within 30 days following the initial response)

LOCATION			
Division:	System:	Index Name:	Index #:
Date of Accident:	Time of Accident:	Station Name:	Station #:
Review Team Members			
First Name	Last Name	First Name	Last Name
Description of Events/Hazards:			
Response Taken:			
Corrective Action:			
RELEASE (complete if needed)			
Substance:	Estimated Volume: __ Units	Attach Additional Comments/Information	Display
INJURY/ILLNESS (complete if needed)			
Injured First Name:	Injured Last Name:	Employee Number:	
Lost Time ☐ Yes ☐ No	Medical Aid ☐ Yes ☐ No	First Aid ☐ Yes ☐ No	
Nature of Injury/Illness:			

ANALYSIS
Method of Investigation ☐ Fish Bone ☐ MBM Problem Solving ☐ Informal ☐ Tap Root ☐ Other _____
ROOT CAUSE - SYSTEM PROBLEMS (mark all that apply)
Cause ☐ Management Systems ☐ Training ☐ Individual Performance ☐ Communications ☐ Equipment Difficulties ☐ Undetermined
What was determined to be the cause of the Accident/Emergency?
OPERATOR QUALIFICATION
Did an individual's performance of a covered task contribute to the accident? ☐ Yes ☐ No
Is the procedure for the cover task adequate? ☐ Yes ☐ No
Was the covered task procedure followed accurately? ☐ Yes ☐ No

FIGURE 8.3-2 - POST-ACCIDENT REVIEW FORM, CONTINUED

(To be performed within 30 days following the initial response)

Comments (if performance of a cover task contributed to the accident, determine what method of requalification is needed. Re-training/Re-testing)	
RESPONSE TO A LEAK/SPILL	
Did we know to use the equipment to assess the extent and coverage of the release and determine the hazardous areas?	☐ Yes ☐ No
Was the employee's actions effective during the response?	☐ Yes ☐ No
Was the contractor's performance effective during the response?	☐ Yes ☐ No
Did we have adequate communication during the response?	☐ Yes ☐ No
If agencies were involved in the response, did Company work well with each agency?	☐ Yes ☐ No
Is further liaison with the government agencies recommended?	☐ Yes ☐ No
Have we done any public awareness in the geographic area of the accident?	☐ Yes ☐ No
Is additional public awareness communication in the geographic area of the accident recommended?	☐ Yes ☐ No
Is there a need to review/modify the emergency response manual as a result of this accident?	☐ Yes ☐ No
Comments (How would you evaluate our our efforts to control the release in order to minimize the hazard?)	

RECOMMENDATION/CORRECTIVE ACTIONS TO MINIMIZE POSSIBILITY OF REOCCURENCE			
List Action Plan/ Recommendation (Number in Sequence)	Responsibility - Company Rep.		Date Completed
	First Name	Last Name	
Other Accident Information Attached ☐ Photos ☐ RCMP Report ☐ Testing Reports ☐ Other _____			

Agency	Responsibility - Company Rep.		Date	Time	Summary of Discussion (Attach additional Information if needed)
	First Name	Last Name			
☐ DOT					
☐ OSHA					

Reported Prepared By			
Signature	First Name	Last Name	Date

Investigated By (Company Supervisor)			
Signature	First Name	Last Name	Date

8.3.1 Final Spill Cleanup Report

A final incident report may be prepared by the Incident Commander or designee after completion of spill cleanup activities for internal use. The report may be written in the narrative form, captured by a company form, and/or stored in a company database. It may include PREP documentation or other agency documents, plus other information as 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 potential cause of 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 significant 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

Northern Zone

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APPENDICES

A. **TRAINING / EXERCISES**

B. **CONTRACTOR RESPONSE EQUIPMENT**

C. **HAZARD EVALUATION AND RISK ANALYSIS**

D. **CROSS-REFERENCES**

E. **ACRONYMS AND DEFINITIONS**

F. **ADDITIONAL INFORMATION**

APPENDIX A Last revised: January 4, 2013

TRAINING / EXERCISES

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A.1 Exercise Requirements and Schedules

Figure A.1-1 - Exercise Requirements

Figure A.1-2 - PREP Response Plan Core Components

Figure A.1-3 - Qualified Individual Notification Exercise

Figure A.1-4 - Spill / Exercise Documentation Form

Figure A.1-5 - Equipment Testing and Deployment Exercise Form

Figure A.1-6 - Incident Management Team Staffing Exercise Form

A.2 Training Program

Figure A.2-1 - Training Requirements

Figure A.2-2 - PREP Training Program Matrix

A.1 EXERCISE REQUIREMENTS AND SCHEDULES

The Company participates in the National Preparedness for Response Exercise Program (PREP). **FIGURE A.1-1** provides a description of the various required PREP Exercise requirements (not all exercises are necessarily required for each facility).

As prescribed in PREP, the company will test their response plan in its entirety every three years. As allowed by PREP, the company has identified individual plan components (**FIGURE A.1-2**) to be exercised in portions within the triennial cycle rather than conducting one major exercise every three years. The components (**FIGURE A.1-2**) correspond with PREP "Exercise" objectives to ensure the plan is adequate to respond to a spill event.

During each triennial cycle, components of the Plan (**FIGURE A.1-2**) are be exercised at least once. Responding to actual event can be credited for an exercise.

The Compliance Manager or designee 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.1-3** provides a documentation form which may be used for a Qualified Individual Notification exercise. **FIGURE A.1-4** provides a Spill/Exercise Documentation form. **FIGURE A.1-5** provides an Equipment Testing and Deployment Exercise documentation form. **FIGURE A.1-6** provides an Incident Management Team Staffing Exercise documentation form. Please note, other comparable company forms may be used instead of these specific forms.

FIGURE A.1-1 - EXERCISE REQUIREMENTS

EXERCISE TYPE	EXERCISE CHARACTERISTICS
Facility/QI Notification	• Conducted quarterly (one per year must be performed during non-business hours • The facility initiates mock spill notification to QI • The Qualified Individual documents time/date of notification, name, and phone number of individual contacted • Document using **FIGURE A.1-3** or comparable form
Emergency Procedures	• Optional exercise for EPA regulated facilities • Review of facility procedures established to mitigate or prevent any discharge or substantial threat of a discharge from operational activities • An emergency procedures conducted unannounced would satisfy the facilities requirement for the annual unannounced

Spill Management Teams / Table Top Exercise	
IMT (Incident Management Team)	• Conducted annually • Tests IMT's (SMT) 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 using **FIGURE A.1-4** or comparable form
Corporate Incident Management Team (If Applicable)	• Conducted annually • Conduct one IMT (spill management exercise or table top) on the core response management procedures • Ensure familiarization with each response plan they are responsible for • Document using **FIGURE A.1-4** or comparable form
Mutual aid SMT (If Applicable)	• Conducted annually • Conduct one IMT (spill management exercise or table top) on the plan holder (or industry type) response management procedures • One or more of the plan holder organization must participate • Ensure familiarization with each response plan they are responsible for • Document using **FIGURE A.1-4** or comparable form
Equipment Deployment Exercise: **Note:** Where OSRO and Company owned equipment are cited, both type of equipment exercises are incorporated.	

Company Owned	• Facilities with company owned and operated equipment:
	  • Semi-annually deploy the:
	  • Minimum amount of equipment for deployment as described in PREP (1,000 ft of each tye of boom and one each type of skimming system), or
	  • Amount of Equipment necessary to respond to an average most probable at the facility, which ever is less
	• Pipelines with operator owned and operated equipment:
	  • Annually deploy the:
	  • Minimum amount of equipment for deployment as described in PREP (1,000 ft of each tye of boom and one each type of skimming system), or
	  • Amount of Equipment necessary to respond to an average most probable at the facility, which ever is less
	• Document using **FIGURE A.1-5** or comparable form

FIGURE A.1-1 - EXERCISE REQUIREMENTS, CONTINUED

EXERCISE TYPE	EXERCISE CHARACTERISTICS
OSRO Owned (Oil Spill Removal Organization)	• Annually for facilities and pipelines, • Company to acquire documentation from the OSRO demonstrating the completion of exercise requirements
Co-op	• OSRO based Co-ops to follow OSRO deployment requirements • Facility equipment and personnel Co-op considered an OSRO in PREP and follow the OSRO deployment requirements for facilities • Co-op personnel responsible for deploying response equipment to be involved in a training program that prepares tem for operating the response equipment
Unannounced (Internal)	• 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 • Document using **FIGURE A.1-4** or comparable form
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
Credit for Spill Response	• Credit may be taken for internal exercises in response to actual spills • Spill response must be evaluated • Determination for credit made on which exercise were completed during the spill response. • Determination should be based on whether the response would meet the objectives of the exercise listed in PREP • Credit for Unannounced should be evaluated • Document in accordance with appropriate Exercise documentation form

Records of Drills	• Company will maintain exercise records for five years following completion of each exercise • 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.1-2 - 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 • Response management system	Demonstrate the ability of the spill response organization to work within a unified command. 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.1-3 - QUALIFIED INDIVIDUAL NOTIFICATION EXERCISE

1. Date(s) QI Exercise performed:			
2. Exercise Name:			
☐ QI Exercise (☐ Announced ☐ Unannounced) ☐ Actual Spill			
Exercised frequency:			
☐ Quarter ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th			
3. Description of Notification Exercise / Event:			
a. Location (Facility, Pipeline, Zones):			
b. Time initiated:			
c. Time ended:			
d. Notification Procedure:			
4. Notification results:			
Person performing exercise:	Method of contact: Telephone, Pager, Radio, other		
Qualified Individual Name	**Time Notified**	**Time Responded**	**Method of Contact**

5. Exercise objective met (contacted made between the facility and qualified individual(s))? _Yes___No
   If no, Lessons learned must be completed.

6. Lessons learned description and persons responsible for follow-up:

Description of Lessons Learned	Responsible corrective measures	Time Table for corrective measures

Print Name:	Signature:
Position:	

FIGURE A.1-4 - SPILL / EXERCISE DOCUMENTATION FORM

1. Date(s) performed:
2. Exercise Name:

Type of Exercise ☐ Exercise (☐ Announced ☐ Unannounced) ☐ Actual Spill

Exercise, credit for:

☐ Emergency Procedures ☐ Spill Management Team ☐ Tabletop

Exercise, frequency:

☐ Quarter (☐ 1st ☐ 2nd ☐ 3rd ☐ 4th) ☐ Semi-Annual ☐ Annual

Response plan discharge scenario used:

☐ Average most probable

☐ Maximum most probable ☐ Worst case		
3. Description of Exercise / Event:		
a. Location:		
b. Time initiated:		
c. Time ended:		
d. Product:		
e. How discovered:		
f. Quantity released :		
g. Affected area(s):		
h. Injuries or Hazards:		
i. Weather:		
4. **Plan Objectives** exercised (may be exercised at different times):		
a. Spill Management Team's Knowledge of Oil-Spill Response Plan		
	Yes	**No**
General Order of Response described in the Plan:		
• Discovery and Assessment (Spill Detection) Phase	☐	☐
• Detection methods identified	☐	☐
• Emergency Type (Event “Class”) identified	☐	☐
• Spill assessment (classifying discharge size & course of action) identified	☐	☐
Security and Response Phases		
• Initial Response	☐	☐
• General site assessment, detail to safety, environment, & public	☐	☐
• Elimination of ignition sources	☐	☐
• Isolation / Confirmation Source was stopped	☐	☐
• Establish Incident Command / field command post (ICS Structure)	☐	☐
• Briefing Meeting, (incident description, objectives, resources needed)	☐	☐
• Develop Site Safety Plan (including evacuations of necessary)	☐	☐
• Established Work Zones and Perimeter Security	☐	☐

• Initial Incident reports completed (company forms or others e.g. ICS 201)	☐	☐

FIGURE A.1-4 - SPILL / EXERCISE DOCUMENTATION FORM, CONTINUED

4. **Plan Objectives** exercised (may be exercised at different times), Continued:		
a. Spill Management Team's Knowledge of Oil-Spill Response Plan, Continued		
	Yes	**No**
• Sustained Response	☐	☐
• Objectives and priorities established with responsibilities assigned	☐	☐
• ICS Center established; transitioned from initial response activities	☐	☐
• IAP – Incident Action Plan, (Short and Long Range tactical objectives)	☐	☐
• Identify / provide clean-up and support resources and services	☐	☐
• Monitor cost; provide accounting, procurement, time recording	☐	☐
• Documentation of event to be recorded and / or maintained	☐	☐
• Coordinate Federal State and Local entities into ICS/ UCS units	☐	☐
• Containment and response methods established	☐	☐
• Closure / Termination Phases	☐	☐
• Closure plan / checklist to finalize ongoing clean-up and removal activities	☐	☐
• Demobilization plan for demobilizing resources	☐	☐
• Develop IAP (Incident Action Plan) for any follow-up actions	☐	☐
• Conduct a post incident review & document (e.g. post incident review form)	☐	☐
b. Proper Notification:	☐	☐
• Internal notifications completed (attach any available logs)	☐	☐
• Qualified Individual contacted and responded (attached OI		

Drill form)	☐	☐
• External (Agency) Notifications completed (attach any available logs) ▪ Federal Agencies (e.g. NRC, USCG, DOT) ▪ Agency _____ Date / Time _____, NRC #: _____, ▪ Agency _____ Date / Time _____, NRC #: _____, ▪ State (e.g. Texas General Land Office / Report Number) ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Local (e.g. LEPC, Sheriff, 911) ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Agency _____ Date / Time _____, Report #: _____, ▪ Agency _____ Date / Time _____, Report #: _____,	☐	☐
c. Communication systems:	☐	☐
Establish Primary/Secondary Communication System?	☐	☐
☐ Primary: (Cellular Phone ☐ Two Way Radio ☐ Land Telephone Line ☐) ☐ Secondary: (Cellular Phone ☐ Two Way Radio ☐ Land Telephoen Line ☐) ☐ Other:		

FIGURE A.1-4 - SPILL / EXERCISE DOCUMENTATION FORM, CONTINUED

d. Ability to Access Contracted Oil Spill Removal Organizations (OSROs):	☐	☐
Were OSRO identified and contacted?	☐	☐
Who contacted (Name of individual at OSRO):		
When contacted:		
Response time projection for deployment:		

Type and amount of equipment requested:		
e. Ability to Coordinate Response with On-Scene Coordinator, and applicable Agencies:	☐	☐
Was regulatory on-scene coordinator(s) contacted?	☐	☐
List person and agency represented:		
f. Ability to Access Sensitive Site & Resource Information in the Area Contingency Plan:	☐	☐
Was Area Contingency Plan available in the exercise?	☐	☐
Were environmental sensitive environments identified in the ACP?	☐	☐
Was spill response equipment identified in the ACP?	☐	☐

Identify which of the 15 core components of your response plan were exercised:

Organizational Design components:

☐ Notifications ☐ Staff Mobilization

☐ Ability to operate within the response management system described in the plan

Operational Response components:

☐ Discharge control ☐ Assessment of discharge

☐ Containment of the discharge ☐ Recovery of spilled material

☐ Protection of sensitive areas ☐ Disposal of recovered material and contaminated debris

Response support components:

☐ Communications ☐ Transportation

☐ Personnel support ☐ Equipment maintenance

☐ Procurement ☐ Documentation

5. Lessons learned description and persons responsible for follow-up:

Description of Lessons Learned	Responsible corrective measures	Time Table for corrective measures

Print Name:	Signature:
Position:	

FIGURE A.1-5 - EQUIPMENT TESTING AND DEPLOYMENT EXERCISE FORM

1. Date(s) performed:
2. Exercise Name:
Type of Equipment Deployment Exercise:
☐ Exercise (☐ Announced ☐ Unannounced) ☐ Actual Spill

EQUIPMENT DEPLOYMENT EXERCISE	
Equipment deployed is	☐ Company owned ☐ OSRO owned ☐ Both
Deployment of equipment was	☐ Exercise (☐ Announced ☐ Unannounced) ☐ Actual Spill
If facility - owned, was Equipment deployed sufficient for average most probable release?	☐ yes ☐ no ☐ na
If OSRO - owned, was Equipment deployed a representative sample (at least 1000 ft boom and at least on type of skimmer)?	☐ yes ☐ no ☐ na
Was equipment deployed in its intended operating environment?	☐ yes ☐ no ☐ na
Are facility personnel responsible for response operations involved in a comprehensive training program?	☐ yes ☐ no ☐ na
Is facility response equipment involved in a comprehensive maintenance program	☐ yes ☐ no ☐ na
Date of equipment deployment:	

ACTIVITY	INFORMATION
Item Type (e.g. boom or skimmer):	
Amount of equipment deployed:	
Number of support personnel to deploy equipment:	
Describe goal of equipment deployed	
Describe strategies listed for equipment deployed (as listed in ACP or responders plan)	
Was all deployed equipment operational? (If no, explain)	

ACTIVITY	INFORMATION
Item Type (e.g. boom or skimmer):	
Amount of equipment deployed:	
Number of support personnel to deploy equipment:	
Describe goal of equipment deployed	
Describe strategies for equipment deployed (Listed in ACP or responders plan)	
Was all deployed equipment operational? (If no, explain)	
OSRO Certification (if applicable)	

FIGURE A.1-5 - EQUIPMENT TESTING AND DEPLOYMENT EXERCISE FORM, CONTINUED

ACTIVITY	INFORMATION
Item Type (e.g. boom or skimmer):	
Amount of equipment deployed:	
Number of support personnel to deploy equipment:	
Describe goal of equipment deployed	
Describe strategies for equipment deployed (Listed in ACP or responders plan)	
Was all deployed equipment operational? (If no, explain)	

ACTIVITY	INFORMATION
Item Type (e.g. boom or skimmer):	
Amount of equipment deployed:	
Number of support personnel to deploy equipment:	
Describe goal of equipment deployed	
Describe strategies for equipment deployed (Listed in ACP or responders plan)	
Was all deployed equipment operational? (If no, explain)	

ACTIVITY	INFORMATION
Item Type (e.g. boom or skimmer):	
Amount of equipment deployed:	
Number of support personnel to deploy equipment:	

Describe goal of equipment deployed	
Describe strategies for equipment deployed (Listed in ACP or responders plan)	
Was all deployed equipment operational? (If no, explain)	

2. Lessons learned description and persons responsible for follow-up:

Description of Lessons Learned	Responsible corrective measures	Time Table for corrective measures
Print Name:	Signature:	
Position:		

FIGURE A.1-6 - INCIDENT MANAGEMENT TEAM STAFFING EXERCISE FORM

Company:	Date:
Exercise Name:	Exercise Type:

* Duties Must include: IC, Ops. Logistics, Planning Admin. Section Chiefs, Safety, Public Affairs, Liaison, etc.
Note: This is an optional form which can be used form staffing documentation in a simulated exercise.

ACTIVITY INFORMATION (Duties*)	Name	Time Contacted	Time to Respond	Comments

STAFF MOBILIZATION ACTIVITY	SUMMARY
Evaluation: *(Able to assemble the spill response organization identified in the responder plan and the ACP for the scenario?)*	
Changes to be Implemented	
Time Table for Implementation	
Print Name:	Signature:
Position:	

A.2 TRAINING PROGRAM

FIGURE A.2-1 provides training requirements for spill responders. **FIGURE A.2-2** provides the program matrix.

Training records for company personnel will be maintained per company policy.

FIGURE A.2-1 - TRAINING REQUIREMENTS

TRAINING TYPE	TRAINING CHARACTERISTICS
Training in use of spill response plan	• Company employees will be trained to properly report and respond to spills. • Appropriate company employees are trained and drilled on the Plan.
OSHA training requirements	• Company responders designated in Plan will have 24 hours of initial spill response training (Haz Mat Technician level) with annual refresher. • Contract responders will be required to meet OSHA requirements under 29 CFR 1910.120

Training for casual laborers or volunteers	• Company will not use casual laborers/volunteers for operations requiring HAZWOPER training
Wildlife	• Only appropriately trained and approved wildlife handlers, as found in the specialized support services section of this Plan, will be used to treat oiled wildlife
Training documentation and record maintenance	• Training records will be maintained in accordance with the Company Records Retention Schedule.
Facility Personnel	• Are trained to enable them to respond effectively to hazardous waste emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems.

FIGURE A.2-2 - PREP TRAINING PROGRAM MATRIX

TRAINING ELEMENT	QUALIFIED INDIVIDUAL (QI)	INCIDENT MANAGEMENT TEAM (IMT)	FACILITY 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 sheets (MSDS), special handling procedures, health and safety hazards, spill and fire fighting procedures	x	x	x
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	x	x	x

which may be available to mitigate or prevent an oil discharge			
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 Incident Management Team (IMT) 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		
The Area Contingency Plan (ACP) for the area in which the facility is located	x	x	x
The National Contingency Plan (NCP)	x	x	x
Roles and responsibilities of federal and state agencies in pollution response	x	x	x

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

TRAINING ELEMENT	QUALIFIED INDIVIDUAL (QI)	INCIDENT MANAGEMENT TEAM (IMT)	FACILITY PERSONNEL
Available response resources identified in the Plan	x	x	
Contracting and ordering procedures to	x	x	

acquire OSRO resources identified in the Plan			
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 insitu 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 IMT		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, insitu 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	
Procedures for directing the deployment and use of spill response equipment, as applicable to designated job responsibilities		x	x
Specific procedures to shut down effected 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			x

• Piping or pipeline leak, both under pressure or not under pressure, if applicable • Explosion or fire • Equipment failure • Failure of secondary containment system			
QI's name and how to contact him or her			x

APPENDIX B Last revised: June 30, 2011

COOPERATIVE AND CONTRACTOR DOCUMENTS

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B.1 Cooperatives and Contractors

B.1.1 OSRO Classification

Figure B.1-1 - Evidence of Contracts

Figure B.1-2 - Equipment Lists

Figure B.1-3 - Drill Deployment Exercises

Northern Zone B - 2

B.1 COOPERATIVES AND CONTRACTORS

The Company has contracted with 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.

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.

The following is a listing of the USCG classified OSROs that may respond to incidents for areas listed in this Plan.

COMPANY / CONTRACTOR	APPLICABLE COTP ZONE (S)	USCG CLASSIFICATIONS	RESPONSE TIME
Eagle SWS, (San Antonio) 414 FM 1103 Cibolo TX 78108	CORPUS CHRISTI	Facilities: MM ✓, W1 ✓, W2 ✓, W3 ✓; Vessels: MM ✓, W1 ✓, W2 ✓, W3 ✓ River/Canal: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ Inland: ✓ ✓ ✓ ✓ ✓ ✓ Open Ocean: Offshore: Nearshore: Great Lakes:	1 hours
TAS Environmental Services, (Austin) 13720 Immanuel Road Austin TX 78660	HOUSTON-GALVESTON	Facilities: MM ✓, W1 ✓, W2 ✓, W3 ✓; Vessels: MM ✓, W1 ✓, W2 ✓, W3 ✓ River/Canal: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ Inland: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ Open Ocean: ✓ ✓ Offshore: ✓ ✓ Nearshore: ✓ ✓ Great Lakes:	1 hours
TAS Environmental Services, (Fort Worth) 3929 E. California Parkway Fort Worth	HOUSTON-GALVESTON	Facilities: MM ✓, W1 ✓, W2 ✓, W3 ✓; Vessels: MM ✓, W1 ✓, W2 ✓, W3 ✓ River/Canal: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ Inland: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ Open Ocean: ✓ ✓ Offshore: ✓ ✓ Nearshore: ✓ ✓	1 hours

TX 76119										
		Great Lakes								
TAS Environmental Services, LP (San Antonio) 14350 Lookout Road San Antonio Texas 78233	HOUSTON-GALVESTON		Facilities				Vessels				1 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓	✓	✓	✓	✓	✓	✓	✓	
		Inland	✓	✓	✓	✓	✓	✓	✓	✓	
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									

Northern Zone B - 3

COMPANY / CONTRACTOR	APPLICABLE COTP ZONE (S)	USCG CLASSIFICATIONS									RESPONSE TIME
Garner Environmental Services, Inc. (Houston Operations) 1717 West 13th Street Deer Park Texas 77536	Houston / Galveston		Facilities				Vessels				2 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓	✓	✓	✓	✓	✓	✓	✓	
		Inland	✓	✓	✓	✓	✓	✓	✓	✓	
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									
Miller Environmental Services, Inc. 600 Flato Road Corpus Christi TX 78405	CORPUS CHRISTI		Facilities				Vessels				6 hours
			MM	W1	W2	W3	MM	W1	W2	W3	
		River/Canal	✓	✓	✓	✓	✓	✓	✓	✓	
		Inland			✓	✓	✓	✓	✓	✓	
		Open Ocean									
		Offshore									
		Nearshore									
		Great Lakes									

Northern Zone B - 4

The following contractors are retained by the Company but are not USCG classified OSROs within this Area, as follows:

FIGURE 7.1-1 provides both OSRO and non-OSRO summarized equipment lists and response times.

FIGURE B.1-1 provides evidence of contracts with OSROs and equipment lists for contractors without USCG classification.

FIGURE B.1-1 - EVIDENCE OF CONTRACTS

- **Eagle SWS, (San Antonio), Cibolo, TX**
- **TAS Environmental Services, (Austin), Austin , TX**
- **TAS Environmental Services, (Fort Worth), Fort Worth, TX**
- **TAS Environmental Services, LP (San Antonio), San Antonio, Texas**
- **Garner Environmental Services, Inc. (Houston Operations), Deer Park, Texas**
- **Miller Environmental Services, Inc., Corpus Christi, TX**

FIGURE B.1-2 - EQUIPMENT LISTS

- **Eagle SWS, (San Antonio), Cibolo, TX**
- **TAS Environmental Services, (Austin), Austin , TX**
- **TAS Environmental Services, (Fort Worth), Fort Worth, TX**
- **TAS Environmental Services, LP (San Antonio), San Antonio, Texas**
- **Garner Environmental Services, Inc. (Houston Operations), Deer Park, Texas**
- **Miller Environmental Services, Inc., Corpus Christi, TX**

FIGURE B.1-3 - DRILL DEPLOYMENT EXERICSES

- **Eagle SWS, (San Antonio), Cibolo, TX**
- **TAS Environmental Services, (Austin), Austin , TX**
- **TAS Environmental Services, (Fort Worth), Fort Worth, TX**
- **TAS Environmental Services, LP (San Antonio), San Antonio, Texas**

- **Garner Environmental Services, Inc. (Houston Operations), Deer Park, Texas**
- **Miller Environmental Services, Inc., Corpus Christi, TX**

APPENDIX C Last revised: February 23, 2010

HAZARD EVALUATION AND RISK ANALYSIS

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C.1 **Spill Detection**

C.2 Worst Case Discharge (WCD) Scenario Discussion

C.3 Planning Volume Calculations

C.4 Spill Volume Calculation DOT

C.5 Pipeline - Abnormal Conditions

C.6 Product Characteristics and Hazards

Figure C.6-1 - Summary of Commodity Characteristics

C.1 SPILL DETECTION

Detection

Detection of a release may occur in a number of ways including:

- Automated or manual detection by a leak detection method such as:
  - Computational Pipeline Monitoring system
  - Line Balance
  - Real-time transient model
  - Pressure/Flow monitoring
- Visual inspection
- Acoustic emission detectors
- Fixed air monitor

Alarm Response

In case of an alarm, Control Center personnel will take the appropriate actions in accordance with operating procedures.

- Trained and qualified personnel in Pipeline Control will monitor the leak detection systems that use SCADA.

(b) (7)(F)



C.1 SPILL DETECTION, CONTINUED

(b) (7)(F)

[redacted]

Visual detection

Aerial patrol flights will be made on a regular basis. 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 or Contractor personnel during regular operations and inspections.

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 effected 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 (WCD) SCENARIO DISCUSSION

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**.

APPENDIX C.4 provides Worst Case Discharge calculations. Discussion of this scenario is as follows:

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

1. The First Responder would notify Supervisory Personnel and notifications would be initiated in accordance with **FIGURE 3.1-1**.

2. The Area Supervisor/Manager of Operations 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 2.1-1** and evacuate personnel as needed in accordance with **SECTION 2.2**
    - Direct facility responders to shut down ignition sources
    - Ensure completion of spill report form in accordance with **FIGURE 3.1-3**
    - Ensure regulatory agencies are notified (**FIGURE 3.1-5**)

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 Incident Management Team. However, for a large spill, the Qualified Individual would assume the role of Incident Commander and would activate the entire Incident 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 2.1.3**.

5. The Incident Commander would then utilize checklists in **SECTION 4.6** as a reminder of ICS position responsibilities. The primary focus would be to establish incident priorities and objectives and to brief staff accordingly.

6. The Incident 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 (**SECTION 5.4**)
    - Site Security (**SECTION 5.7**)
    - Incident Action (**SECTION 5.3.2**)
    - Decontamination (**SECTION 5.5**)
    - Disposal (**SECTION 5.6**)
    - Demobilization **(SECTION 5.8)**

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 CALCULATION

DOT/PHMSA portion of pipeline/facilities

The Worst Case Discharge (WCD) for the DOT portion of the pipeline and facilities, is defined in 49 CFR 194.105(b) as the largest volume of the following:

1. The pipeline's maximum shutdown 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 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 Company has determined the Worst Case Discharge volume to be a catastrophic line failure of the largest line section with the greatest drainage capacity in each response zone or 25% of the volume of the largest tank in each zone.

[redacted]

C.4 SPILL VOLUME CALCULATION, CONTINUED

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.

All of the breakout tanks in the pipeline system are within adequate secondary containment, therefore, the discharge volumes for the largest tank was determined by adjusting the total tank volume downward by 75% per the company guidelines.

Considering the volume of release from a line break compared to that of historic discharge in each zone and to the volumes released from a tank failure, the tank failure was found to represent the Worst Case Discharge scenario.

The maximum historic discharge is not applicable for WCD covered by this plan. Given below are the tank and pipeline WCD calculations for this plan.

(b) (7)(F)

C.4 SPILL VOLUME CALCULATION, CONTINUED

The worst case tank volume is calculated as follows:

Largest tank x Credit for containment tank standards = Tank standards credit

The Company has implemented all of the spill prevention measures, listed on the previous page, except tertiary containment. Therefore, the percent reduction allowed for credit equals 75% and the Worst Case Discharge volume is 25% of the total volume

(b) (7)(F)

(b) (7)(F)

[redacted]

C.5 PIPELINE - ABNORMAL CONDITIONS

Abnormal Operations? under 49 CFR 195.402(d) may be a "substantial threat" that could pose a threat to Worst Case Discharge. Procedures to identify Abnormal Operations and actions to take for preventing and mitigating such events and conditions, are described in the Operating, Maintenance, and Emergency Procedures for Hazardous Liquids Manual.

C.6 PRODUCT CHARACTERISTICS AND HAZARDS

This Facility may store various types of commodities including but not limited to:

- Crude Oil
- Diesel (#1 & #2)
- Ethyl Alcohol (Fuel Grade) / (Ethanol ? Denatured)
- Gasoline
- Jet A

MSDS can be obtained by the facility in the Employee Right To Know Stations, additionally MSDS may also be available electronically via intra and internet.

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
Crude Oil	Crude	3	3	C, H2S	0	May contain benzene, a carcinogen, or hydrogen sulfide, which is

						harmful if inhaled; flash point varies widely
Diesel (#1 & #2)	Diesel	2	2	C	0	Long term, repeated exposure may cause skin cancer.
Ethyl Alcohol (Fuel Grade) / (Ethanol ? Denatured)	Ethyl Alcohol (Fuel Grade)	1	4	C	0	May contain benzene, a carcinogen, which is harmful if inhaled; flash point varies widely
Gasoline	Gasoline	2	3	C	0	Long term, repeated exposure may cause cancer, blood, kidney and nervous system damage, and contains benzene.
Jet A	Appropriate product name	3	1	0	2	Breathing high concentrations may be harmful. May cause central nervous system depressions or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death,

						depending on the concentration and duration of exposure.

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** **H_2S = Hydrogen Sulfide** **P = Contents under Pressure** **T = Hot Material**	**Reactivity Hazard**	**4 = May Detonate at Room Temperature** **3 = May Detonate with Heat or Shock** **2 = Violent Chemical Change with High Temperature and Pressure** **1 = Not Stable if Heated** **0 = Stable**

APPENDIX D
CROSS-REFERENCES

Last revised: January 2005

Figure D-1 - DOT / PHMSA Cross-Reference

Figure D-2 - OSHA Cross-Reference

Figure D-3 - EPA / RCRA Cross-Reference

FIGURE D-1 - DOT / PHMSA CROSS-REFERENCE

OPA 90 REQUIREMENTS (49 CFR 194)	LOCATION
Information Summary	
• For the core plan:	
• Name and address of operator	Figure 1-2
• 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 1-2
• For each Response Zone appendix:	
• Information summary for core plan	Section 1
• QI names and telephone numbers, available on 24-hr basis	Figure 1-2
• Description of Response Zone, including county(s) and state(s) in which a worst case discharge could cause substantial harm to the environment	Figure 1-2
• List of line sections contained in Response Zone, identified by milepost or survey station or other operator designation	Figure 1-2
• Basis for operator?s determination of significant and substantial harm	Figure 1-2
• 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 1.2, 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, Section 4.5, Figure 4.5-1
• Primary and secondary communication methods by which notifications can be made	Section 7.1.6

FIGURE D-1 - 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 3.1-3
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 3.1-6, Appendix B
• Identification of personnel and their location, telephone numbers, and responsibilities for use of equipment in response	Figure 3.1-4, Figure 3.1-6,

activities on a 24-hour basis	Appendix B
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

FIGURE D-1 - 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 1-2
• 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 1-2
• 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 3.1-6, 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

FIGURE D-1 - 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 responsibilities	Figure 3.1-5
• 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:
  • Each potentially affected public drinking water intake, lake, river, and stream within a radius of five miles of the line section
  • Each potentially affected environmentally sensitive area within a radius of one mile of the line section
	Figure 1-3, Section 6.6, Section 6.7

• Piping diagram and plan-profile drawing of each line section; may be kept separate from the response plan if the location is identified	Figure 1-2

• 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
	Figure C.6-1

FIGURE D-2 - OSHA CROSS-REFERENCE

EAP REQUIREMENTS (29 CFR 1910.38 [a] [2])	LOCATION
• Emergency escape procedures and emergency escape route assignments	Section 2
• Procedures to be followed by employees who remain to operate critical plant operations before they evacuate	N/A
• Procedures to account for all employees after emergency	Section 2

evacuation has been completed	
• Rescue and medical duties for those employees who are to perform them	Section 2
• The preferred means of reporting fires and other emergencies	Section 2, Figure 3.1-1
• Names of regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan	Figure 3.1-4, Section 4.6

ERP REQUIREMENTS (29 CFR 1910.120 [l] [2])	LOCATION
• Pre-emergency planning	Appendix C
• Personnel roles, lines of authority, and communication	Section 4.4, Section 4.6, Section 7.1.6
• Emergency recognition and prevention	Section 2
• Safe distances and places of refuge	Section 2
• Site security and control	Section 5.7, Section 7.3
• Decontamination procedures which are not covered by the site safety and health plan	Section 5.5
• Emergency medical treatment and first aid	Section 2
• Emergency alerting and response procedures	Section 3
• Critique of response and follow-up	Section 8.3
• PPE and emergency equipment	Section 7, Appendix B

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE

EPA / RCRA REQUIREMENTS (40 CFR PART 265.16)		LOCATION
§ 265.16	**Applicability**	
a	(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or	Figure A.2-1

	operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3) of this section.	
	(2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.	Figure A.2-1
	(3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable: (i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; (ii) Key parameters for automatic waste feed cut-off systems; (iii) Communications or alarm systems; (iv) Response to fires or explosions; (v) Response to ground-water contamination incidents; and (vi) Shutdown of operations.	Appendix A.1, Appendix A.2
	(4) For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to this section, provided that the overall facility training meets all the requirements of this section.	Appendix A.1, Appendix A.2
b	Facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.	Figure A.2-1
c	Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.	Figure A.2-1

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.16)		LOCATION
§ 265.16	**Applicability**	
d	The owner or operator must maintain the following documents and records at the facility: (1) The job title for each position at the facility related to hazardous waste management, and the name of the	 Figure 3.1-4

	employee filling each job; (2) A written job description for each position listed under paragraph (d)(1) of this Section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position; Facility Manager – (typically the terminal or station manager) responsible for the overall hazardous and non-hazardous waste management functions at the facility. Facility Hazardous Waste Technician – responsible for hazardous waste management functions at the facility as directed by the Facility Environmental Manager; typically performs physical hands-on waste activities including moving, storage and labeling of containers, collecting samples, performing weekly waste container inspections, and oversight of offsite waste shipments. (3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this section;(4) Records that document that the training or job experience required under paragraphs (a), (b), and (c) of this section has been given to, and completed by, facility personnel.	Figure D-3 Figure A.2-1
e	Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.	Figure A.2-1

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.30 - 265.37)		LOCATION
§ 265.30	**Applicability**	
	The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §265.1 provides otherwise.	

§ 265.31	**Maintenance and operation of facility.**	
	Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.	
§ 265.32	**Required equipment.**	
	All facilities must be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:	
a	An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;	Section 7.1.6
b	A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;	Section 7.1.6
c	Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and	Section 7.1.1, Figure C-8
d	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.	N/A
§ 265.33	**Testing and maintenance of equipment.**	
	All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.	Appendix A.1
§ 265.34	**Access to communications or alarm system.**	
a	Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under §265.32.	Not Applicable

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.30 - 265.37)	LOCATION

§ 265.34	**Access to communications or alarm system.**	
b	If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under §265.32.	Section 7.1.6
§ 265.35	**Required aisle space.**	
	The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.	Figure 2.1-1
§ 265.37	**Arrangements with local authorities.**	
a	The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:	
	(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;	Section 1.1
	(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;	Section 1.1
	(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and	Appendix B
	(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.	Section 1.1
b	Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.	Section 1.1

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.50 - 265.56)		LOCATION
§ 265.50	**Applicability**	
	The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as 265.1 provides otherwise.	Section 1.1
§ 265.51	Purpose and Implementation of Contingency Plan	
a	Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.	Section 1.1
b	The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.	Section 1.1
§ 265.52	Content of Contingency Plan	
a	The contingency plan must describe the actions facility personnel must take to comply with 265.51 and 265.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.	Section 2
b	If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasure (SPCC) Plan in accordance with Part 112 of this chapter, or Part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part.	Section 7.4
c	The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to 265.37.	Figure 3.1-3
d	The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see 265.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.	Figure 1-2
e	The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept	Section 7.1

	up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.50 - 265.56)		LOCATION
§ 265.52	Content of Contingency Plan, Continued	
f	The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).	Section 2.2
§ 265.53	Copies of Contingency Plan	
	A copy of the contingency plan and all revisions to the plan must be:	-----
a	Maintained at the facility, and	Section 1.2
b	Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.	Section 1.2
§ 265.54	Amendment of Contingency Plan	
	The contingency plan must be reviewed, and immediately amended, if necessary, whenever:	-----
a	Applicable regulations are revised;	Section 1.2
b	The plan fails in an emergency;	Section 1.2
c	The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;	Section 1.2
d	The list of emergency coordinators changes; or	Section 1.2
e	The list of emergency equipment changes.	Section 1.2
§ 265.55	Emergency Coordinator	
	At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all	Figure 1-2, Section 4.5, Appendix A

	operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan. *[Comment: The emergency coordinator's responsibilities are more fully spelled out in 265.56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility].*	

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.50 - 265.56)		LOCATION
§ 265.56	Emergency Procedures	
a	Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:	Section 2.1.3, Figure 2.1-1, Section 4.5
a(1)	Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and	Section 2.1.3, Figure 2.1-1, Section 4.5
a(2)	Notify appropriate State or local agencies with designated response roles if their help is needed.	Section 2.1.3, Figure 2.1-1, Section 4.5
b	Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and a real extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.	Section 2.1.3, Figure 2.1-1, Section 4.5
c	Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).	Section 2.1.3, Figure 2.1-1, Section 4.5
d	If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside of the facility, he must report his findings as follows:	Section 2.1.3, Figure 2.1-1, Section 4.5
d(1)	**If his assessment indicates that evacuation of local areas may be advisable, he must**	Section 2.1.3, Figure 2.1-1, Section 4.5

	immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and	
d(2)	He must immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under Part 1510 of this Title), or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:	Section 2.1.3, Figure 2.1-1, Section 4.5, Figure 3.1-2
d(2)(i)	Name and telephone number of reporter:	Figure 3.1-2, Figure 3.1-3
d(2)(ii)	Name and address of facility;	Figure 3.1-2, Figure 3.1-3
d(2)(iii)	Time and type of incident (e.g., release, fire);	Figure 3.1-2, Figure 3.1-3
d(2)(iv)	Name and quantity of material(s) involved, to the extent known;	Figure 3.1-2, Figure 3.1-3
d(2)(v)	The extent of injuries, if any; and	Figure 3.1-2, Figure 3.1-3
d(2)(vi)	The possible hazards to human health, or the environment, outside the facility.	Figure 3.1-2, Figure 3.1-3

FIGURE D-3 - EPA / RCRA CROSS-REFERENCE, CONTINUED

EPA / RCRA REQUIREMENTS (40 CFR PART 265.50 - 265.56)		LOCATION
§ 265.56	**Emergency Procedures (Cont'd)**	
e	During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.	Section 2, Figure 2.1-1
f	If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment, wherever this is appropriate.	Section 2, Figure 2.1-1
g	Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a	Section 7.4, Section 5.5

	release, fire, or explosion at the facility. *[Comment: Unless the owner or operator can demonstrate, in accordance with § 261.3(c) or (d) of this chapter, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Parts 262, 263, and 265 of this chapter].*	
h	The emergency coordinator must ensure that, in the affected areas(s) of the facility:	-----
h(1)	No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and	Section 7.4, Section 5.5
h(2)	All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.	Section 5.4, Section 7.1-2
i	The owner or operator must notify the Regional Administrator, and appropriate State and local authorities, that the facility is in compliance with paragraph (h) of this section before operations are resumed in the affected area(s) of the facility.	Figure 3.1-3
j	The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Regional Administrator. The report must include:	Section 8.3
j(1)	Name, address, and telephone number of the owner or operator;	Section 8.3
j(2)	Name, address, and telephone number of the facility;	Section 8.3
j(3)	Date, time, and type of incident (e.g., fire, explosion);	Section 8.3

APPENDIX E Last revised: January 2005

ACRONYMS AND DEFINITIONS

E.1 Acronyms

E.2 Definitions

E.1 ACRONYMS

ACP	Area Contingency Plan
AFFF	Aqueous Film Forming Foam
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)
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
FRP	Facility Response Plan
FRT	Facility Response Team
FWPCA	Federal Water Pollution Control Act of 1972
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
NRC	National Response Center
NRDA	National Resource Damage Assessment
NRT	National Response Team
OBA	Oxygen Breathing Apparatus
OPA 90	Oil Pollution Act of 1990
OSC	On-Scene Coordinator/Commander
OSHA	Occupational Safety and Health Administration (USDL)
PHMSA	Pipeline and Hazardous Materials Safety Administration (DOT)
PPE	Personal Protective Equipment
PREP	(National) Preparedness for Response Exercise Program
QI	Qualified Individual
RCRA	Resource Conservation and Recovery Act of 1976
RQ	Reportable Quantity
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

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

Aqueous Film Forming Foam
A fluoro-carbon surfactant that acts as an effective vapor securing agent due to its effect on the surface tension of the water. Its physical properties enable it to float and spread across surfaces of a hydrocarbon fuel with more density than protein foam.

Average Most Probable Discharge **(USCG)**
A discharge of the lesser of 50 barrels (2100 gallons) or one percent of the volume of the worst case discharge.

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

Bleve
A boiling liquid-expanding vapor explosion; failure of a liquefied flammable gas container caused by fire exposure. Pronounced "blevey." Boilover
Occurs when the heat from a fire in a tank travels down to the bottom of the tank causing water that is already there to boil and push part of the tank's contents over the side. Carbon Dioxide

A heavy, colorless, odorless, asphyxiating gas, that does not normally support combustion. It is one and one-half times heavier than air and when directed at the base of a fire its action is to dilute the fuel vapors to a lean mixture to extinguish the fire.

Class A Fire
A fire involving common combustible materials which can be extinguished by the use of water or water solutions. Materials in this category include wood and wood-based materials, cloth, paper, rubber and certain plastics.

Class B Fire
A fire involving flammable or combustible liquids, flammable gases, greases and similar products. Extinguishment is accomplished by cutting off the supply of oxygen to the fire or by preventing flammable vapors from being given off.

Class C Fire
A fire involving energized electrical equipment, conductors or appliances. Nonconducting extinguishing agents must be used for the protection of firefighters.

Class D Fire
A fire involving combustible metals, for example, sodium, potassium, magnesium, titanium and aluminum. Extinguishment is accomplished through the use of heat-absorbing extinguishing agents such as certain dry powders that do not react with the burning metals.

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 contractual agreement with a response contractor. The agreement should identify and ensure the availability of the specified personnel and equipment described under U.S.C.G. Regulations within stipulated response times in the specified geographic areas

- Certification by the facility owner or operator that the specified personnel and equipment described under USCG Regulations are owned, operated, or under the direct control of the facility owner or operator, and are available within stipulated times in the specified geographic areas

- Active membership in a local or regional oil spill removal organization that has identified specified personnel and equipment described under USCG Regulations that are available to respond to a discharge within stipulated times in the specified geographic areas

- A document which:

    - Identifies the personnel, equipment, services, capable of being provided by the response contractor within stipulated response times in specified geographic areas
    - Sets out the parties' acknowledgment that the response contractor intends to commit the resources in the event of a response
    - Permits the Coast Guard to verify the availability of the response resources identified through tests, inspections, drills
    - Is incorporated by reference in the Response Plan

- 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.

Demand Breathing Apparatus
A type of self-contained breathing apparatus that provides air or oxygen from a supply carried by the user.

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
Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or

conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.

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.

Facility
Any pipeline, structure, equipment, or device used for handling oil including, but not limited to, underground and aboveground storage tanks, impoundments, mobile or portable drilling or workover rigs, barge mounted drilling or workover rigs, and portable fueling facilities located offshore or on or adjacent to coastal waters or any place where a discharge of oil from the facility could enter coastal waters or threaten to enter the coastal waters.

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.

Flashover
The ignition of combustibles in an area heated by convection, radiation, or a combination of the two. The action may be a sudden ignition in a particular location followed by rapid spread or a "flash" of the entire area.

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.

Higher Volume Port Area
Ports of:

- Boston, MA
- New York, NY
- Delaware Bay and River to Philadelphia, PA
- St. Croix, VI
- Pascagoula, MS
- Mississippi River from Southwest Pass, LA to Baton Rouge, LA
- Louisiana Offshore Oil Port (LOOP), LA
- Lake Charles, LA
- Sabine-Nachez River, TX
- Galveston Bay and Houston Ship Channel, TX
- Corpus Christi, TX
- Los Angeles/Long Beach Harbor, CA
- San Francisco Bay, San Pablo Bay, Carquinez Strait, Suisun Bay to Antioch, CA
- Straits of Juan de Fuca and Puget Sound, WA
- Prince William Sound, AK

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.

Hypothermia
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.

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.

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

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

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

Marine Transportation-Related Facility (MTR Facility)
An onshore facility, including piping and any structure used to transfer oil to or from a vessel, subject to regulation under 33 CFR Part 154 and any deepwater port subject to regulation under 33 CFR Part 150.

Maximum Extent Practicable
The planning values derived from the planning criteria used to evaluate the response resources described in the response plan to provide the on-water recovery capability and the shoreline protection and clean-up capability to conduct response activities for a worst case discharge from a facility in adverse weather.

Maximum Most Probable Discharge (USCG)
A discharge of the lesser of 2,500 barrels or ten percent of the volume of a worst case discharge.

Medium Discharge **(EPA)**
Same as maximum most probable discharge.

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.

Nearshore Area
The area extending seaward 12 miles from the boundary lines defined in 46 CFR Part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending seaward 12 miles from the line of demarcation (COLREG) lines) defined in '80.740 - 80.850 of Title 33 of the

CFR.

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

- 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.

Offshore Area
The area beyond 12 nautical miles measured from the boundary lines defined in 46 CFR Part 7 extending seaward to 50 nautical miles, except in the Gulf of Mexico. In the Gulf of Mexico it is the area beyond 12 nautical miles of the line of demarcation (COLREG lines) defined in '80-740 - 80.850 of Title 33 of the CFR extending seaward to 50 nautical miles.

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 oil spill response resources, and includes any for profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provide required response resources.

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.

Overhaul
A procedure following a fire whereby the area is examined for hidden fire and fire extension and the fire area is cleaned up.

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

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(s) of the facility identified in the plan, located in the United States, available on a 24-hour basis, familiar with implementation of the facility response plan, and trained in his or her responsibilities under the plan. This person must have full written authority to implement the facility's response plan. 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.

Reid Vapor Pressure Method
Method used by the American Society of Testing Materials to test vapor pressure. It is a measure of the volatility, or tendency to vaporize, of a liquid.

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.

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.

Slopover
An event that occurs when water is introduced into a tank of very hot liquid, causing the liquid

to froth and spatter. Small Discharge (EPA)
Same as average most probable discharge.

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

Spill 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.

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.

Tornado Warning
A tornado has been sighted.

Tornado Watch
Conditions are favorable for tornados to form.

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.

APPENDIX F Last revised: March 1, 2009

ADDITIONAL INFORMATION

- TGLO Coastal Water Provisions
- TGLO Oil Spill Reporting Boundaries
- TGLO Sound Management Practice Program

LINK FILES

(b) (7)(F)

TECHNICAL RESPONSE PLANNING
CORPORATION

1995 ✧ 2005
10 YEARS OF EXCELLENCE

October 30, 2006

L. E. Herrick
Response Plans Officer
U.S. DOT Office of Pipeline Safety
400 Seventh Street, S.W., Room 2103
Washington, D.C. 20590

RE: RSPA Sequence Number 451 - Southern Zone Spill Response Plan
RSPA Sequence Number 640 - Central Zone Spill Response Plan
RSPA Sequence Number 638 - Northern Zone Spill Response Plan

Dear L. E. Herrick:

In response to the letter dated December 13, 2005 from your office, we are respectfully submitting, on behalf of Koch Pipeline Company, LP (KPL) two enclosed copies of the above referenced 49 CFR Part 194, Response Plans for Onshore Transportation-Related Facilities for your review and approval.

Previously KPL and Flint Hills Resources (FHR) submitted a joint Integrated Contingency Plan (ICP) to your office for review and approval. KPL and FHR are now submitting separate response plans due to the development of the electronic plan format.

There are several findings in the December 13, 2005 letter concerning uncertainties with the joint response plans and cross-reference errors. The electronic plan has addressed the cross-reference errors and the separate plans address the uncertainties that were contained in the combined plan. The OPS sequence numbers (452, 453, 639, 641, and 642) have been deleted from KPL's response plans. The TGLO map finding is no longer an issue as all maps are in electronic format.

The summary of review findings has been addressed in this submission. The plans include a cross references that will allow you to quickly review the plans and ensure KPL has met all required components. In addition we have attached a reference of all the plan items and the section in which they are addressed.

If you have any questions regarding the enclosed Koch Pipeline Plans, please contact Shawnna D. Poor, DOT Compliance Coordinator, at (361) 242-5504.

Sincerely,
TECHNICAL RESPONSE PLANNING CORPORATION

Gregory Desmond
Senior Project Manager

Enclosures
Federal Express

GD:ac

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

KOCH

KOCH PIPELINE COMPANY LP

March 1, 2012

Melanie Barber
Environmental Planning Officer
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Room E22-210
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590
RE:

- RSPA Sequence Number 640 – Central Zone, Spill Response Plan
- RSPA Sequence Number 638 – Northern Zone, Spill Response Plan
- RSPA Sequence Number 451 – Southern Zone, Spill Response Plan

Dear Ms. Barber:

Pursuant to 49 CFR 194.121(a)(2), Koch Pipeline Company, L.P. ("KPL") hereby resubmits the significant and substantial harm plans, as required, based on our five (5) year review and update of procedures. Enclosed, is a CD of KPL's revised Spill Response Plans, outlined above. If you have any questions, please contact me at (361) 242-5544 or Gabriel.Lugo@kochpipeline.com.

Sincerely,

Gabriel Lugo
Emergency Response Manager

Encl.

8606 IH 37
Corpus Christi, Texas 78409

From: Ortiz, Christina
To: Lugo, Gabriel
Subject: FW: FedEx Shipment Notification
Date: Thursday, March 01, 2012 2:13:53 PM

From: trackingupdates@fedex.com [mailto:trackingupdates@fedex.com]
Sent: Wednesday, February 29, 2012 9:15 AM
To: Ortiz, Christina
Subject: FedEx Shipment Notification

This tracking update has been requested by:

Company Name:	Koch Pipeline Company, LP
Name:	Christina Ortiz
E-mail:	christina.ortiz@kochpipeline.com

Christina Ortiz of Koch Pipeline Company, LP sent Melanie Barber of U.S. DOT, Environmental Planning 1 FedEx Priority Overnight package(s).

This shipment is scheduled to be sent on 02/29/2012.

Reference information includes:

Reference:	PHMSA 5 Year Review
Special handling/Services:	Deliver Weekday
Status:	Shipment information sent to FedEx
Tracking number:	793283008937

To track the latest status of your shipment, click on the tracking number above, or visit us at fedex.com.

To learn more about FedEx Express, please visit our website at fedex.com.

This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the accuracy of this tracking update. For tracking results and fedex.com's terms of use, go to fedex.com.

Thank you for your business.

Maps have been redacted in accordance with the FOIA Exemption 7(F).



RELEASE TO OR THREATENING NAVIGABLE OR COASTAL WATERS

STATE OF TEXAS NOTIFICATIONS

IN THE EVENT OF A SPILL ENTERING OR THREATENING NAVIGABLE OR COASTAL WATER

SPILL TO WATER

EXTERNAL NOTIFICATIONS

REQUIRED:

NATIONAL RESPONSE CENTER

800-424-8802

PLUS;

STATE OF TEXAS
(TGLO / TCEQ)

800-832-8224

PLUS;

RAILROAD COMMISSION
OFFICE OF PIPELINE SAFETY
512-463-6788

AND;

OIL & GAS OFFICE DISTRICT OFFICE*

*** NOTE: FOR NUMBER LOOK ON EXTERNAL NOTIFICATION SECTION**

SPECIAL PROCEDURES / RESOURCES IDENTIFIED

Insitu Burn

In the event of a spill, there will be no use of Insitu Burn without prior approval from the RRT (Work through UCS - USCG / TGLO)

Dispersants

In the event of a spill, there will be no use of dispersants without prior approval from the RRT (Work through UCS - USCG / TGLO)

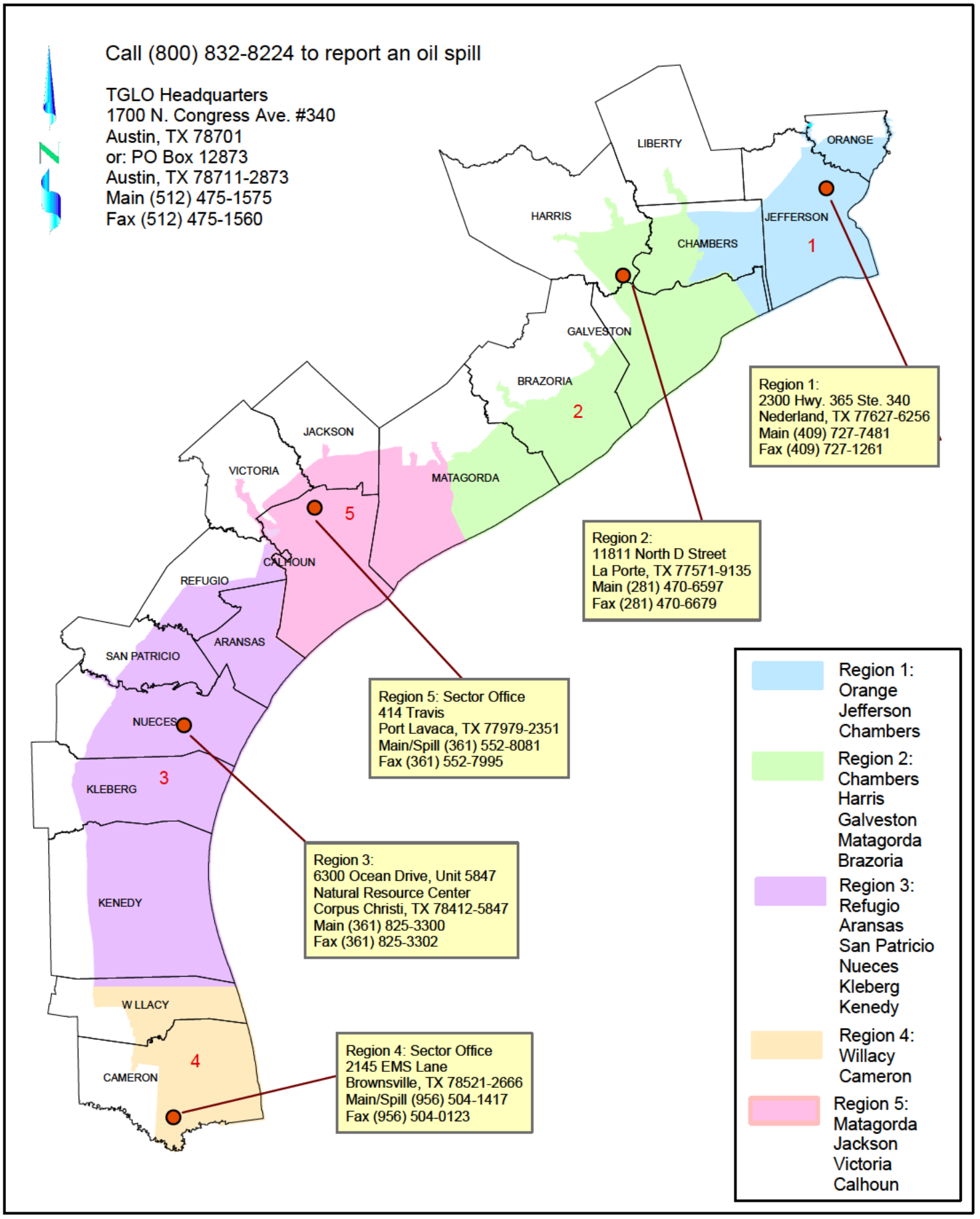
Wildlife Handling and Rehabilitation

This resource will be contacted through Miller Environmental:

Wildlife Rehab and Education
www.wrande.org
951 Power ST.
League City, Texas 77573

Sharon Schmalz
Work 281-332-8319
Pager 713-279-1417
Michele Johnson
Pager 281-418-8100

TGLO - Oil Spill Prevention & Response Regional Offices



This map was produced on 10/6/2005 at 10 31:43 AM
by Robert L. Barron, GIS Application Developer
IS/GIS/Applciaton Development

Locations are general in nature. The author makes no warranties on accuarcy or locations. Map not suitable for navigation purposes.

Sound Management Practice Program - Statement of Intent

This form serves as official notification that my company is actively employing a Sound Management Practice Program (SMPP). I certify that all facilities and/or vessels, of which I am owner/operator, actively employ an SMPP that includes the following elements:

(1) statement of intent
(2) written policies and procedures and methodology to ensure compliance
(3) training documentation
(4) post spill auditing processes

I request that the Texas General Land Office accept this statement of intent and apply the appropriate penalty matrix should an oil spill occur in which I am the responsible party. I understand that the GLO may review our SMPP if the circumstances surrounding an oil spill warrant such examination.

Date June 15, 2009

Signature _____

Printed Name Kevin Swaner

Company/Vessel Name Koch Pipeline Company L.P.

GLO Facility Certificate Number(s) (if appropriate)
50174, 30131, 30132

Mailing Address 8606 IH 37
Corpus Christi Tx 78409

Phone 361-242-5539 Fax 361-241-6096

E-mail Kevin.Swaner@Kochpipeline.com.

Mail or fax to:

Peggy Spies
Texas General Land Office
Oil Spill Prevention and Response
P.O. Box 12873
Austin, Texas 78711-2873
Fax - (512) 475-1560

1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 1 of 4)

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)

1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 2 of 4)

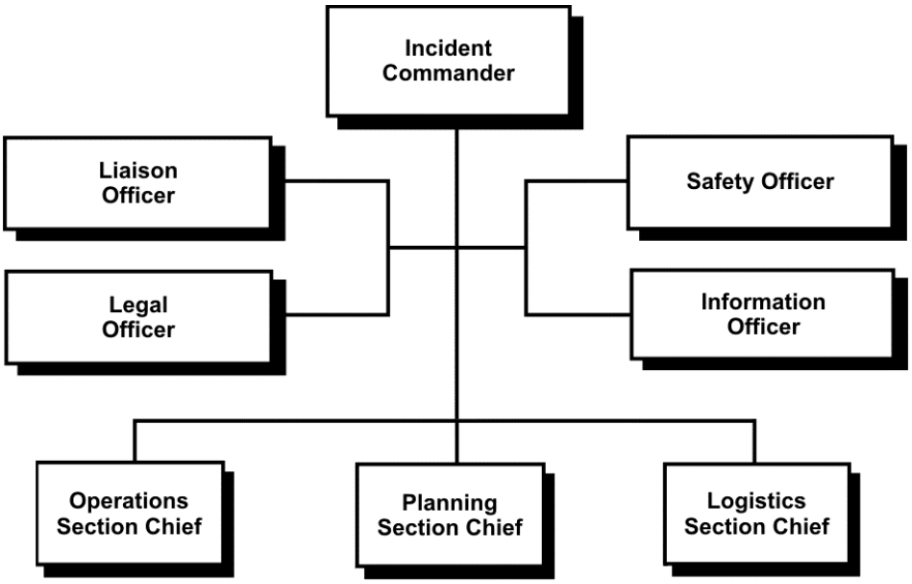
4. Initial Incident Objectives

5. Summary of Current Actions

Time	Action/Note

1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 3 of 4)

3. Current Organization



1. Incident Name	2. Prepared by: (name) Date Time:	INCIDENT BRIEFING ICS 201-OS (pg 4 of 4)

7. Resources Summary

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

1. Incident Name	2. Operational Period (Date / Time) From:	3. Date	4. Time

RISKS												RISK MITIGATION										
Division/Group	Weather	B ohazard	Hazardous Mater als	Commun cat ons	R ver/Water Hazard	SHA	Fat gue	D v ng Hazards/Bends	Dehydrat on	C SM												

Prepared by (Name and Position)

INCIDENT ACTION PLAN SAFETY ANALYSIS

November 2003

ICS 215A-OS

Electronic version: NOAA 1.0 November 1, 2003

INCIDENT ACTION PLAN SAFETY ANALYSIS (ICS FORM 215A-OS)

Purpose. This form communicates to the the Operations and Planning Section Chiefs safety and health issues identified by the Safety Officer. The Worksheet is used by the Planning section Chief to complete Operations briefings.

Preparation. This form is principally crafted by the Safety Officer. Use additional sheets, as needed.

Distribution. When the safety analysis is completed, the form is distributed to the Planning Section Chief to help prepare Operations briefing packages. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Date	Enter date (MMDDYYYY) prepared.
4.	Time	Enter time prepared (24-hour clock).
	Division/Group	Enter Division/Group indentifiers.
	Blank Risk Header	Enter appropriate title for risk.
	Blank Risk Mitigation Header	Enter appropriate information for risk mitigation.
	Blank Risk Cells	Enter an X to indicate a risk type of concern in a division/group.
	Blank Risk Mitigation Cells	Enter an X to indicate mitigation for risk to division/group.
	Prepared By	Enter name and title of the person preparing the form.

Operational Planning Worksheet

1. Incident Name:	2. Operational Period (Date / Time) From: To:	OPERATIONAL PLANNING WORKSHEET ICS 215-OS

		5. Resource / Equipment															9. "X" here if 204a Needed			
3.Division / Group Or Location	4. Work Assignments	Resource															6. Notes / Remarks	7. Reporting Location	8.Requested Arrival Time	
		Req.																		☐
		Have																		☐
		Need																		☐
		Req.																		☐
		Have																		☐
		Need																		☐
		Req.																		☐
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		Have																		☐
		Need																		☐
		Req.																		☐
		Have																		☐
		Need																		☐

10. Total Resources Required:																	13. Prepared By: (RUL)
11. Total Resources on Hand:																	
12. Total Resources Needed:																	Date: Time:

		WORK ANALYSIS MATRIX ICS 234-CG
1. Incident Name	2. Operational Period From: To:	
3. Operation's Objectives DESIRED OUTCOME	4. Optional Strategies HOW	5. Tactics/Work Assignments WHO, WHAT, WHERE, WHEN
6. Prepared by: (Operations Section Chief)		7. Date/Time:

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 (COMMUNICATIONS UNIT)					

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

4. INCIDENT ORGANIZATION

5. RADIO DATA	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					

6. Agency

ICS 217	Page	Prepared By:

IAP COVER SHEET

1. Incident Name:	2. Operational Period (Date / Time) From: To:	IAP Cover Sheet

3. Approved By:

FOSC ____

SOSC ____

RPIC ____

____

____

INCIDENT ACTION PLAN

The items identified with an "X" below are included in this Incident Action Plan:

☐ ICS 202-OS (Response Objectives)

☐ ICS 203-OS (Organization List) or ☐ ICS 207-OS Organization Chart)

☐ ICS 204-OS (Assignment Lists)

One copy each of any ICS 204-OS attachments:

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

☐ ICS 204a-OS (Assignment Lists)

☐ ICS 205-OS (Communications List)

☐ ICS 206-OS (Medical Plan)

☐ ICS 209-OS (Incident Status Summary)

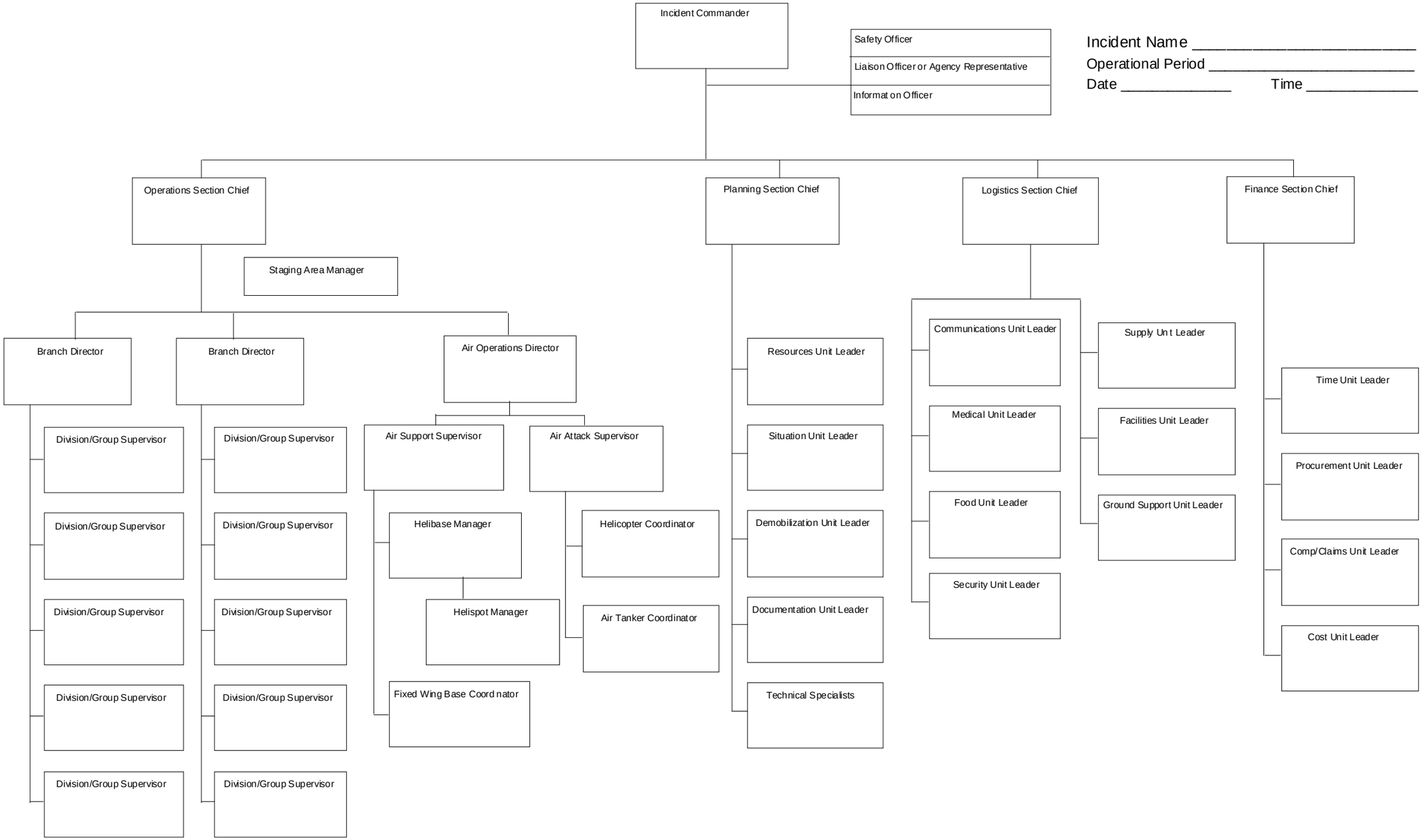
☐ ICS 230-OS (Daily Meeting Schedule)

☐ ICS 232-OS (Resources at Risk)

☐ ____

☐ ____

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



ICS 207

NFES 1332

INCIDENT OBJECTIVES

PAGE OF

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 (☐ mark with "X" if Weather Sheet attached)

7. Tides/Currents (☐ mark with "X" if Tide/Current Data attached)

8. Time of Sunrise **Time of Sunset:**

9. Attachments (mark with "X" if attached)

☐ Organizational List (ICS 203-OS)	☐ Medical Plan (ICS 206-OS)	☐ Resources at Risk Summary (ICS 232-OS)
☐ Assignment List (ICS 204-OS)	☐ Incident Map(s)	☐
☐ Communica ions Plan (ICS 205-OS)	☐ Traffic Plan	☐

10. Prepared By: ICS Position: Date: Time:

PAGE OF

ORGANIZATION ASSIGNMENT LIST

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

3. Incident Commander & Staff		
	Primary	Deputy
Federal:		
State:		
RP(s):		
Safety Officer		
Information Officer		
Liaison Officer		

4. Agency Representative	
Agency	Name

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

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

7. OPERATIONS SECTION		
Chief		
Deputy		
a. Branch I - Division/Groups		
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		
Branch Director		
Deputy		
Division / Group		
Division / Group		
Division / Group		
Division / Group		
Division / Group		

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

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

ASSIGNMENT LIST

PAGE OF

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 Instructions 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: (Resource Unit Leader) Date / Time	11. Approved By: (Planning Section Chief) Date Time

ASSIGNMENT LIST ATTACHMENT

PAGE OF

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

Approved Site Safety Plan Located At:

12. Other Attachments (as needed)

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

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

RADIO COMMUNICATIONS PLAN

PAGE: OF

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

3. BASIC RADIO CHANNEL USE

SYSTEM / CACHE	CHANNEL	FUNCTION	FREQUENCY	ASSIGNMENT	REMARKS

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

COMMUNICATIONS LIST

Page of

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**

MEDICAL PLAN

Page of

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

3. Medical Aid Stations

NAME OF MEDICAL AID STATIONS	Location	Contact #	Paramedics On Site (Y/N)

4. Transportation (Ground and/or Ambulance Services)

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

RESOURCES AT RISK

PAGE OF

1. Incident Name:	2. Operational Period Time (Date / Time) From: To:	RESOURCES AT RISK 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

INCIDENT STATUS SUMMARY

1. Incident Name	2. Period Covered by Report From: To:	Time of Report	INCIDENT STATUS SUMMARY ICS 209-0S

3. Spill Status (Estimated, in Barrels) [Ops & EUL/SSC]

Source Status: Remaining Potential (bbl):

☐ Secured Rate of Spillage (bbl/hr):

☐ Unsecured

	Since Last Report	Total
Volume Spilled		
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.

	Captured	Cleaned	Released	DOA	Died in Facility: Euth.	Died in Facility: Other
Birds						
Mammals						
Reptiles						
Fish						
Total						

7. Safety Status [Safety Officer]

	Since Last Report	Total
Responder Injury		
Public Injury		

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]

Organization	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)

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	

AIR OPERATIONS SUMMARY

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
Air Operations Director			
Air Tactical Supervisor			
Air Support Supervisor			
Helicopter Coordinator			
Fixed-Wing Coordinator			

5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)

6. Location / Function	7. Assignment	8. Fixed-Wing		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	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:	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	
	Operations Briefing	Present IAP and assignments to the Supe rvisors/Leaders for the next operational period.	IC / US, 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:**

STATUS CHANGE

1. Incident Name	2. Operational Period (Date / Time) From: To:	STATUS CHANGE ICS 210-OS

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: (Resource Unit) **Date / Time**

1. Incident Name	2. Operational Period (Date / Time) From: To:	3. Check-in Location ☐ Command Post ☐ Other ☐ Staging Area ____ ____	**CHECK-IN LIST (Equipment)** **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**	(X)	In	Out
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11. Prepared by: **Date / Time**	**12. Date / Time Sent to Resources Unit**

1. Incident Name	2. Operational Period (Date / Time) From: To:	3. Check-in Location ☐ Command Post ☐ Other ☐ Staging Area ____ ____	**CHECK-IN LIST (Personnel)** **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**	(X)	In	Out
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10. Prepared by: **Date / Time**	**11. Date / Time Sent to Resources Unit**

SUPPORT VEHICLE INVENTORY (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. I.D. NO.	f. LOCATION	g. RELEASE TIME

218 ICS 8-78	PAGE	5. PREPARED BY (GROUND 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

REMARKS

INCIDENT LOCATION	TIME

STATUS
ETR

NOTE

INCIDENT LOCATION	TIME

STATUS
ETR

NOTE

AGENCY	TYPE	MANUFACTURER	ID. NO.

INCIDENT LOCATION	TIME

STATUS
ETR

NOTE

INCIDENT LOCATION	TIME

STATUS
ETR

NOTE

INCIDENT LOCATION	TIME

STATUS
ETR

NOTE

INCIDENT LOCATION	TIME

STATUS
ETR

NOTE

1. Incident Name	2. Operational Period (Date / Time) From: To:	DEMOB. CHECK-OUT ICS 221-OS
3. Unit / Personnel Released	4. Release Date / Time	

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. 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**

1. Incident Name	2. Operational Period (Date/Time) From: To:	INDIVIDUAL LOG ICS 214a-OS

3. Individual Name	4. ICS Section	5. Assignment/Location

6. Activity Log	Page of

Time	Major Events

7. Prepared by:	Date/Time

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

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

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

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

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

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

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 shall 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 zones or where otherwise designated. Decontamination stations are to be equipped and manned to assist personnel leaving a contaminated zone to remove, package, and label soiled or contaminated response equipment, thus preventing the spread of contaminants.

Listed below are recommended stations for a Decontamination Plan. Note: Not all of these stations may be necessary. The actual type and number of stations will be decided by the Decontamination Group in conjunction with the Safety Officer based on the type of material released and the hazards of the material.

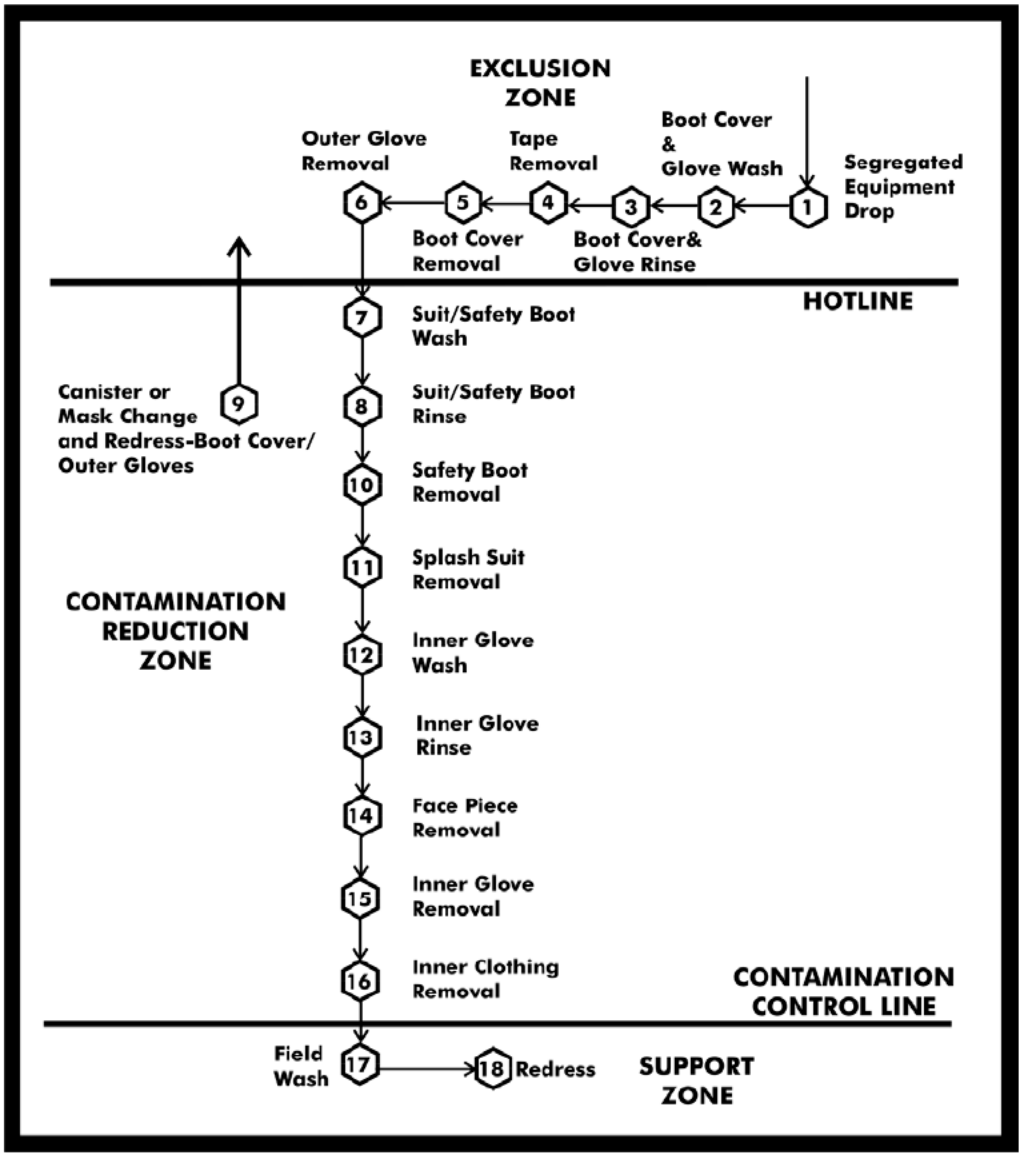
MAXIMUM MEASURES FOR DECONTAMINATION		
STATION 1	Segregated equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths or in different containers with plastic liners. Segregation at the drop reduces the 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 a

DECONTAMINATION PLAN

		scrub brush and decontamination solution.
STATION 8	Suit, 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	Suit removal	With assistance of helper, remove outer suit (Tyvek suits). 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	If highly toxic, skin-corrosive, or skin-absorbable materials are known or suspected to be present, work with safety; an on-site shower may be necessary. Wash hands and face if shower is not available.
STATION 18	Re-dress	Put on clean clothes. Exit point of the Decontamination Site.

DECONTAMINATION PROCEDURES, MAXIMUM DECONTAMINATION LAYOUT

DECONTAMINATION PLAN



5.5 DECONTAMINATION PLAN, CONTINUED

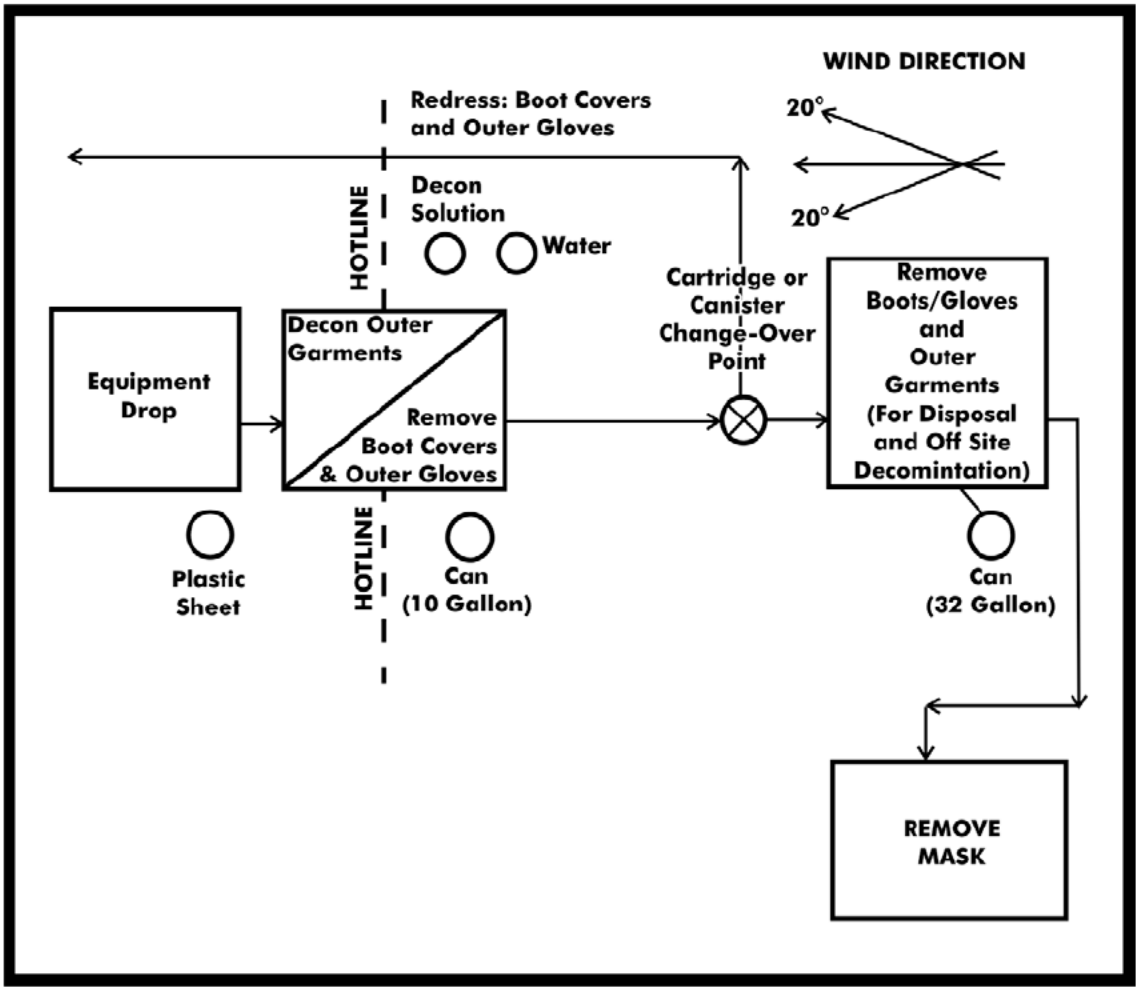
MINIMUM MEASURES FOR DECONTAMINATION		
STATION 1	Equipment drop	Deposit equipment used on site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather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

DECONTAMINATION PLAN

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, and 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. Exit point of the Decontamination Site.

5.5 DECONTAMINATION PLAN, CONTINUED

DECONTAMINATION PROCEDURES, MINIMUM DECONTAMINATION LAYOUT



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:	

DISPOSAL PLAN

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:	

DISPOSAL PLAN

Waste coordinator:

Initial Site Safety and Health Checklist

ASSIGN SITE SAFETY RESPONSIBILITY
Name:
ESTABLISH CONTROL ZONES
• Exclusion zone:
• Contamination reduction zone:
• Support zone:
ESTABLISH PERIMETER AND RESTRICT ACCESS (Compile sketch as necessary)

Initial Site Safety and Health Checklist

CHARACTERIZE SITE HAZARDS
• Identify pollutant:
• Obtain Material Safety Data Sheets
• Conduct air monitoring as necessary:
• Identify physical and biological hazards, i.e.: slips, trips, falls, confined spaces, noise, weather conditions, poisonous insects, reptiles, plants, and biological waste:
ASSESS TRAINING REQUIREMENTS
• Ensure only authorized persons are allowed access
UTILIZE EH&S SAFE WORK PERMITS AS INITIAL SITE SAFETY PLAN
• Ensure safety briefings
• Select Personal Protective Equipment
• Level A, B, C, or D:
ESTABLISH DECONTAMINATION STATION(S)
ESTABLISH EMERGENCY MEDICAL PLAN
• Locate hospital, EMT, and first aid stations:
• List emergency numbers:
Fire:
Police:
Ambulance:
For spills of significance, the Site Safety Plan is designed to meet these Safety Objectives.

Site Safety and Health Plan

Incident Name:	
Date:	Site Safety Officer:
Scope	
This Site Safety Plan is for use on the specified above incident and response to a spill of _____ estimated to be approximately _____ in volume. This incident is being managed by designated Company personnel integrated with on-site Federal, State, and/or Local response representatives along with the use of commercial HAZWOPER-accepted qualified contractors. This plan is based on the regulations and recommendations of Federal Agencies such as OSHA, EPA, DOT, and USCG and the Company. Company personnel or contractors will be on site to address safety concerns, site safety plans, conduct Industrial Hygiene monitoring, and for special assistance; however, the day-to-day safe operation of the site and project is the responsibility of trained site supervisors. Every site employee shall comply with provisions of this plan and focus constant attention on preventing loss or damage to any person, property, process, or the environment.	
Site Description	
Location:	
This incident is at _____, in the state of _____, and in the vicinity of _____. The Command Post is currently located at _____. The Incident Base and Staging Area are located at _____.	

On-Site Control Boundaries:	**Marking:**
Exclusion Zone - Hotline	As designated by:
Contamination Reduction Zone	As designated by:
Support Zone	As designated by:
Hazards:	
Area Affected:	
The area is _____and is identified as the Hot Zone.	
Surrounding Population:	

Site Safety and Health Plan

Topography:
Weather Conditions:
The weather is _____, temp. is _____, and there is a _____ % chance of precipitation. The prevailing wind is from the _____ at _____ mph throughout the day.
Environmental and Archeological Concerns:
Initial Entry Objectives:
Additional Information:
Identified sources of ignition within or adjacent to the spill or contained liquid will be shut down, secured, isolated or monitored, as appropriate. Electrical equipment shall be in compliance with regulatory requirements. Note: Smoking is not allowed on Company property.
Site Access
Personnel shall notify the Site Safety Officer or designee prior to entering or leaving the site. _____ has been designated to control access. A sign-in log will be maintained at the incident base. Persons entering the area shall sign in/out. Entry into spill area will be by trained personnel only. Training documentation shall be provided to the Site Safety Officer prior to entry.

Site Safety and Health Plan

Hazard Evaluation	
Chemical Hazards:	
The following substance is known to be at the Spill site.	
Substance:	**Primary Hazard:**
☐ Crude Oil	Flammable/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Gasoline	Flammable/Slightly Toxic/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Diesel Fuel	Flammable/Slightly Toxic/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Jet Fuel	Flammable/Moderately Toxic/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Additive	Flammable/Slightly-Moderately Toxic/Skin, Eye, Nose, Throat, and Lung Irritant
☐ Butane	Flammable/Asphyxiant/Prolonged contact may cause frostbite
☐ Kerosene	Flammable/Skin, Eye, Nose, Throat, & Lung Irritant
☐ Propane	Flammable/Asphyxiant/Prolonged contact may cause frostbite/Explosive mixtures with air
☐ Benzene	Flammable/Skin and Eye Irritant/May be toxic if inhaled or ingested
☐ Hydrogen	Flammable gas/Asphyxiant/Colorless and odorless
☐ Toluene	Flammable/Skin and Eye Irritant/may be toxic if inhaled or ingested
☐ Xylene	Flammable/Skin and Eye Irritant/may be toxic if inhaled or ingested
☐ Natural Gas	Flammable gas/Asphyxiant/Colorless and odorless
☐ Fuel Gas	Flammable/Poisonous Gas/Skin and Eye Irritant/Prolonged contact may cause frostbite/Harmful or fatal is swallowed
☐ Other, _____	
☐ Other, _____	
☐ Other, _____	

Site Safety and Health Plan

Material Safety Data Sheets

Material Safety Data Sheets for Company Products are located on the company intranet. Employees involved in an emergency response are trained to read Company MSDS and to know where they are located. MSDS for material released/spilled during this incident can be found at the following locations:

Personal Protective Equipment

The following Personal Protective Equipment (PPE) shall be required for entry into the Spill Area during the cleanup process.

Level B	Level C	Level D
1. Hard Hat 2. Self Contained Breathing Apparatus 3. Latex inner gloves, Neoprene outer gloves 4. Flame retardant clothing, such as Nomex suits, with cuffs and pant legs duct tape sealed 5. Radios will be provided to the entry team, backup team, and command staff. These radios shall be intrinsically safe and tested prior to entry	1. Hard Hat 2. Safety glasses with side shields, splash goggles, or safety glasses with full face shield 3. Neoprene gloves 4. Tyvek disposable suit with cuffs and pant legs duct tape sealed 5. If monitoring results indicate the continued need for respiratory protection, SCABAs or SARs may be used. If a half mask or a full face respirator is allowed, it must be NIOSH-approved and use the correct type of cartridge	1. Hard Hat 2. Safety Glasses 3. Long sleeved shirt - tank tops will not be allowed 4. Long legged pants or overalls - shorts will not be allowed 5. Hand protection as needed 6. Additional items as required by Safety Officer

Decontamination

A Decon Site Layout (**SECTION 5.5**) shall be used to construct the Decon area. Personnel involved in the response and entering the Hot Zone area shall be trained and equipped to meet the requirements of Emergency Response.

Decon Site(s) should be constructed at the point of entry to the Hot Zone. Multiple Decon Sites may be necessary for multiple cleanup areas or when an area has multiple entry points.

Site Safety and Health Plan

Communications
Only intrinsically safe electronic devices will be allowed within the Hot Zone. Verbal and hand signal communication is allowed in the Hot Zone. Cellular phones, pagers, lamps, or flare devices shall not be allowed into Hot Zone unless intrinsically safe and approved by the Safety Office or designee. Other non-sparking methods which cannot produce ignition may be allowed in the Hot Zone, but must be approved by the Safety Officer. Cellular phones, pagers, stationary telephones, and any other communication devices shall be allowed by the Safety Officer into other support areas of the incident.
Personal Identification
As available, Incident Command position personnel shall wear vests with the position label on the vest (Incident Commander, Planning, Logistics, Operations, Safety, etc.) If vests are not available, the IC personnel shall ensure they are recognized by personnel they are supervising.
First Aid
First aid kits are located at _____. Serious injuries will be treated by 911 EMS response systems as needed. Injuries, no matter how slight, shall be reported to a Safety Officer immediately.

(b) (7)(F)

(b) (7)(F)

EAGLE
CONSTRUCTION
& ENVIRONMENTAL
SERVICES, L.P.

Eagle Construction &
Environmental Services, LP
414 FM 1103
Cibolo, Texas 78108

January 7, 2009

Kin Gerold
Koch Pipeline Company, LP
PO Box 64596
St. Paul, MN 55164

Re: Self Certification Of Oil Spill Equipment Deployment / Exercise, "Annual Revision"
USCG OSRO Certification No. 0085

Ms. Gerold:

The National Preparedness for Response Exercise Program (PREP) sets guidelines to address exercise requirements for Oil Spill Removal Organizations (OSRO). In keeping with these guidelines and being identified in **Koch Pipeline Company, LP** Response Plan, **Eagle** is obligated to deploy a representative sample of each piece of response equipment listed in our inventory. Each item has been deployed and exercised in the environment in which it was intended to operate.

Eagle has deployed, either in training or during actual spills, a piece of Oil Spill Response Equipment that will represent all of the items listed in our response inventory. This includes but is not limited to various company owned pumps, booms, boats and excavation equipment.

The actual deployments/exercises in 2007 were as follows:

ACTUAL DEPLOYMENTS

Texas Divisions

- January 2007-Eagle responded to a 1,500 gallon jet fuel release at the San Antonio International Airport. 1000 feet of containment boom, skimmers, sorbents and vacuum trucks were used to remove the product.

- March 2007-Eagle responded to a train derailment in west Texas that resulted in an oil spill in a river. Eagle deployed 500 feet of containment boom to control the oil. A vacuum truck was used to remove the oil.

- May 2007-Eagle responded to an oil spill that impacted a cooling tower at a power plant in San Antonio, TX. Containment boom was used to control the spread of the oil. Vacuum trucks and sorbents were utilized to remove the oil.

- July 2007-Eagle responded to a 7,000 bbl jet fuel spill in Huntsville TX. Eagle deployed 3000 feet of boom and built underflow dams to control the release that impacted over 4 miles of Turkey Creek. 15 vacuum trucks and 5 drum skimmers were used to remove the fuel. 50 frac tanks were used to stage the fuel prior to disposal.

- August 2007-Eagle responded to an oil spill at an East Texas power plant. Oil from the impacted the lake. 1,000 feet of containment boom was used to control the oil.

- September 2007-Eagle deployed 1,000 feet of containment boom in the water intakes of a power plant near San Antonio, TX. The boom was kept in place during construction at the power plant. Eagle maintained the boom during the two month project.

- September 2007-Eagle deployed 500 feet of containment boom north of Tulsa, Oklahoma to control oil from that was released during the floods in the area. Sorbents were used to remove the oil.

- October 2007-Eagle responded to 1,000 bbl fuel release from a pipeline in south east Texas. Eagle utilized 200 feet of containment boom and trac hoes to control the release of product.

- December 2007-Eagle deployed 1,500 feet of containment boom on Lake Worth in Lake Worth, Texas to contain diesel fuel leaking from a boat that had begin to sink.

Ohio Division

- January 2007-Eagle responded to an unknown amount of oil released in Akron, OH that migrated through drainage tiles into a retention pond. Cleanup crews deployed over 2,000 feet of containment boom as well as 1,000 feet of absorbent materials. In addition, 2 vacuum trucks, 2 drum skimmers and boats were used in the effort.

- March 2007-Eagle deployed 1,600 feet of containment/absorbent boom in Toledo, OH to contain a diesel fuel spill in the Ottawa River. Eagle responded with a Hi-Rail vacuum truck, frac tanks, boats and an excavator to remove the oil from the frozen river.

- May 2007-Eagle responded to Willard, OH to a 2,000 gallon fuel spill. The spill was contained with containment/absorbent booms and underflow dams. The fuel was removed with vacuum trucks and 2 drum skimmers

Louisiana Division

- August 2007-Eagle responded to a gas well blowout. Eagle deployed 1,000 feet of containment boom to control the released liquids from the well.

EXCERCISES

- January 2007-Eagle took part in a spill drill a fuel storage facility in Fort Worth. A "worst case scenario" was discussed during the event.

- March 2007-Eagle deployed 2,000 feet of containment boom during a "worst case scenario" spill drill at a fuel storage facility in San Antonio, TX. State and local officials attended the full-scale drill.

- April 2007-Eagle attended a table top spill drill in east Texas for a pipeline company. The drill involved all the surrounding fire departments and city and state officials.

- May 2007-Eagle attended a table top drill scenario and contractor orientation for a petro-chemical company in Findlay, OH.

- October 2007-Eagle participated in a "worst case discharge scenario" for a petro-chemical company in Waco, TX. In addition to the Waco location, discussions were made for the facilities in San Antonio, Austin, and Fort Worth, Texas.

- November 2007-Eagle attended a table top spill drill in Sweetwater, TX for a pipeline company. The drill involved a "worst case scenario" release of product on the local water supply.

Other responses have occurred that fulfill the PREP requirements and documentation is available upon request. Eagle maintains documentation to verify testing and maintenance of all spill response equipment. All response personnel are trained to CFR 1910.120 and certificates are available upon request.

Please feel free to contact me at (210) 566-8366, toddj@ecesi.com, or on my cell phone at (817) 966-1493, if I can be of any further assistance.

In the event of an emergency, please call (800) 336-0909.

Sincerely,
Eagle Construction and Environmental Services, LP



Todd Johnson
Corporate Emergency Response Manager

Oil Spill Response Equipment Inventory
Ft. Worth Division

Containment Boom:

4000 feet of More Boom 18-inch boom - *pre loaded on two trailers 1000' each*
400 feet of More Boom10 inch boom
200 feet of More Boom 6-inch mini boom

Oil Skimmers:

Douglas Engineering, Skim Pac Mod. 18000 vacuum skimmer
Folex vacuum skimmer
3- Elastec single/double barrel drum skimmers (15-75 gpm)

Boats:

(2) Lowe 16 foot jon boat with 25-hp outboard motor
(3) Alumacraft 16 foot jon boat with 25-hp outboard motor
Generation 3, 18 foot flat bottom boat with 35-hp outboard motor

Frac Tanks:

(2) 1993 Herring frac tank
(9) 1993 VE Enterprises frac tank
(1) 1999 Modern Mfg. frac tank
(2) 1998 Frontier 500 bbl frac tank
(2) 1999 shop built skid mounted 8000 gallon tank

Vacuum Trailer and Trucks:

(1) 1991 130 BBL vacuum trailer
(1) 130 bbl 2000 Pioneer vacuum trailer
(1) 130 bbl 1990 Indou vacuum trailer
(1) 100 bbl 1985 Keith Huber vacuum trailer
(1) 100 bbl 1987 Keith Huber vacuum trailer
(1) 60 bbl 1977 Mack RS 686ST vacuum truck
(1) 60 bbl 1991 Kenworth T800 vacuum truck

Ft. Worth Division - Continued

Oil Spill Response Trailer:

Absorbent boom
Absorbent pads
Assorted hand tools
Banner tape
Boat oars
Bow saws
Chain saws
Chest waders
Decon solution
Dip nets
Fiber pearl absorbent
Fire extinguishers
Flash lights
Fuel cans
Leaf blowers
Life jackets
Peat moss absorbent
Pollution cans
Poly debris bags - 6 mil.
Poly sheeting - 6 mil.
PPE
Propane pear burners
Propane tanks
Pump sprayers
Rope
Universal boom couplers
Wash pumps and hose
Weed eaters
Wooden stakes

Bulk absorbents and additional supplies are stored in the Ft. Worth warehouse for rapid deployment.

OFFICE LOCATIONS

Corporate Office:	9701 East I-20 Eastland, Texas 76448 Phone: (254) 629-1718 Fax: (254) 629-8625	Contact: Marc Walraven E-Mail: marcw@ecesi.com Cell: (817) 829-7569
Fort Worth Office:	9204 Highway 287 N.W. Fort Worth, Texas 76131 Phone: (817) 847-1333 Fax: (817) 306-8086	Contact: JT Ponder E-mail: jtponder@ecesi.com Cell: (817) 829-0647
La Porte Office:	1700 North E Street La Porte, Texas 77571 Phone: (281) 867-9131 Fax: (281) 867-9150	Contact: Reggie Grimes E-mail: reggieg@ecesi.com Cell: (281) 541-7826
San Antonio Office:	414 FM1103 Cibolo, Texas 78108 Phone: (210) 566-8366 Fax: (210) 566-6247	Contact: Mark Anderson E-mail: marka@ecesi.com Cell: (210) 825-9167
Louisiana Office:	10049 Industriplex Gonzales, Louisiana 70737 Phone: (225) 677-7877 Fax: (225) 677-5474	Contact: Mark Allen E-mail: markallen@ecesi.com Cell: (225) 235-1403
Ohio Office:	3820 Ventura Drive Findlay, Ohio 45840 Phone: (419) 425-5845 Fax: (419) 425-5851	Contact: John Seifert E-mail: johns@ecesi.com Cell: (419) 348-4127
Tennessee Office:	1877 S. Roane Street Harriman, Tennessee 37748 Phone: (865) 882-7717 Fax: (865) 882-7719	Contact: David Dyer E-mail: davidd@ecesi.com Cell: (865) 338-5378

Corporate Emergency Response Manager-Todd Johnson (210) 566-8366 office, (817) 966-1943 cell
toddj@ecesi.com

OSRO Equipment Listing

Austin-Texas ***JAN*** 2011

Vacuum Equipment	**QTY**	**CFM**	**GPM**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Misc.**
3,300 gal. Liquid Truck	1			TBD				
3,300 gal. Liquid Truck (Stainless Steel)								
Industrial Loader								
Liquid Ring Vacuum Truck								
4,000 gal. Liquid Truck								
2,300 gal. Combination Machine								
2,000 gal. Quickload Vacuum Truck								
2,500 gal. Liquid Vacuum Truck								
6,000 gal. Liquid Vacuum Tanker								

High Pressure Water Equipment	**QTY**							**Misc.**
3500 psi pressure washer								
4,000 psi line jetter								
3,000 psi high volume line jetter								
20,000 psi hydroblaster								

Response Vehicles	**QTY**							**Misc.**
20 ft. First Responder Van (Haz)								
1 Ton Response Van								
24 ft. Emergency Response Truck (ERT)								
Haz Response Unit (ambulance type)								
Emergency Response trailer	1							
F-150								
F-250	1			TBD				
F-350								
F-450 (Stake Bed)								

Roll Off Equipment	**QTY**							**Misc.**
70,000 lb. Roll-of truck								
PUP roll-off trailer								
Double bottom roll-off trailer								
20 yd. roll off								
25 yd. roll off								
30 yd. roll off								
40 tard trash boxes								
25 yd Vac boxes								
Skid mounted 4,000 gal tanks								

Frac Tanks 500 BBL	Rental available
Poly Tanks	Rental available

OSRO Equipment Listing

Containment Boom	Feet	Manufacturer	Flotation Skirt Length					Misc.
10"								
18"	1000'	More	12"	Hard Boom				
30"								
26"								
42"								

Skimming Equipment	QTY	Manufacturer	GPM					Misc.
ACME Weir Skimmer								
TDS 118 Drum Skimmer								
TDS 136 Drum Skimmer								
GT 185 Drum Skimmer								
Action 36" Drum Skimmer								
Barrell Mounted Mop Wringer								
Horizontal Mip Wringer								
Vertical Mop Wringer								
Weir Skim Pack								
Foilex Skimmer								

Pumping Equipment	QTY	Manufacturer						Misc.
2" Peristalic - Petroleum								
2" Peristalic - Chemical								
3" Peristalic -								
2", 3" & 4" Double Diaphragm								
3" & 4" Diaphragm								
3" Submersable - Pneumatic								
6" Bypass & Transfer Pumps								

Marine Response Boats / Vessels	QTY	Manufacturer	Motor Size	Length (FT)	Personnel Capacity			Misc.
25' to 42'								
25' to 42'								
Johnboat								

Service Center Personnel	Techs	Supervisors	Managers	Admin	CDL Drivers/Eq Oper	Foremen	HSE	Total
Personnel			1					

OSRO Equipment Listing

Fort Worth ***JAN*** 2011

Vacuum Equipment	**QTY**	**CFM**	**GPM**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Misc.**
3,300 gal. Liquid Truck	3	600		5222	TBD	TBD		
3,300 gal. Liquid Truck (Stainless Steel)	1	600		5077				Stainless Steel
Industrial Loader								
Liquid Ring Vacuum Truck								
4,000 gal. Liquid Truck								
2,300 gal. Combination Machine								
2,000 gal. Quickload Vacuum Truck								
2,500 gal. Liquid Vacuum Truck								
6,000 gal. Liquid Vacuum Tanker	4	600		212	213	214	220	

High Pressure Water Equipment	**QTY**							**Misc.**
3500 psi pressure washer	3			1554	1533	1556		trailer mounted hot water pressure washers
4,000 psi line jetter								
3,000 psi high volume line jetter								
20,000 psi hydroblaster								

Response Vehicles	**QTY**							**Misc.**
20 ft. First Responder Van (Haz)								
1 Ton Response Van								
24 ft. Emergency Response Truck (ERT)								
Haz Response Unit (ambulance type)								
Emergency Response trailer	3			361	409	462		
F-150								
F-250								
F-350	21	various						
F-450 (Stake Bed)	1							

Roll Off Equipment	**QTY**							**Misc.**
70,000 lb. Roll-of truck	2			5078	5079			
PUP roll-off trailer								
Double bottom roll-off trailer	3			418	419	424		
20 yd. roll off	23	Various						
25 yd. roll off	24	Various						
30 yd. roll off	29	Various						
40 tard trash boxes	1							
25 yd Vac boxes	10	mayfab						
Skid mounted 4,000 gal tanks								

Frac Tanks 500 BBL	5	Various	Rental available
Poly Tanks	5	3000 gal	Rental available

OSRO Equipment Listing

Containment Boom	Feet	Manufacturer	Flotation Skirt Length					Misc.
10"	600		10"	Hard Boom				
18"	2000		12"	Hard Boom				
30"								
26"								
42"								

Skimming Equipment	QTY	Manufacturer	GPM					Misc.
ACME Weir Skimmer								
TDS 118 Drum Skimmer								
TDS 136 Drum Skimmer	1	Elastec						
GT 185 Drum Skimmer								
Action 36" Drum Skimmer								
Barrell Mounted Mop Wringer								
Horizontal Mip Wringer								
Vertical Mop Wringer								
Weir Skim Pack	1	Acme						
Foilex Skimmer	1	Foilex						

Pumping Equipment	QTY	Manufacturer						Misc.
2" Peristalic - Petroleum								
2" Peristalic - Chemical								
3" Peristalic -								
2", 3" & 4" Double Diaphragm	8	Various						1" Poly SS and Alum 2" Poly, SS and Alum
3" & 4" Diaphragm								
3" Submersable - Pneumatic								
6" Bypass & Transfer Pumps								

Marine Response Boats / Vessels	QTY	Manufacturer	Motor Size	Length (FT)	Personnel Capacity			Misc.
25' to 42'								
25' to 42'								
Johnboat	3	Alumacraft	25 hp	16	3			

Service Center Personnel	Techs	Supervisors	Managers	Admin	CDL Drivers/Eq Oper	Foremen	HSE	Total
Personnel	12	8	2	10	14	3	1	50

OSRO Equipment Listing

Houston-Texas ***JAN*** 2011

Vacuum Equipment	**QTY**	**CFM**	**GPM**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Misc.**
3,300 gal. Liquid Truck	3	600		5050	5089	5082		
3,300 gal. High Dump Industrial Loader								
Industrial Loader								
Liquid Ring Vacuum Truck								
4,000 gal. Liquid Truck								
2,300 gal. Combination Machine								
2,000 gal. Quickload Vacuum Truck								
2,500 gal. Liquid Vacuum Truck								
6,000 gal. Liquid Vacuum Tanker								
5,000 gal. Liquid Vacuum Truck	2	600		1219	1203			
Airmover/jet rod combo unit	1	5000		5080				
Airmover	1	5000		5079				

High Pressure Water Equipment	**QTY**							**Misc.**
2,000 psi pressure washer	2							
4,000 psi pressure washer	1							
3,000 psi high volume line jetter								
10,000 psi hydroblaster								
20,000 psi hydroblaster	1							

Response Vehicles	**QTY**							**Misc.**
20 ft. First Responder Van (Haz)								
1 Ton Response Van								
24 ft. Emergency Response Truck (ERT)	1			4091				
Haz Response Unit (ambulance type)								
Emergency Response trailer	2			1477	1480			
F-150								
F-250	6			3197-3207	3200-3188	3200	3243	
F-350	4			3244	3210	3205	3145	
F-450 (Stake Bed)								

Roll Off Equipment	**QTY**							**Misc.**
70,000 lb. Roll-of truck	2			6067	7090			
PUP roll-off trailer								
Double bottom roll-off trailer	1			1426				
20 yd. Debris boxes								
20 yd. Soil boxes	10							
20 yd. Gasket boxes								
20 yd. Vacuum boxes	4							
25-30 yd. Debris boxes	26							
40 yd. Debris boxes	8							
Skid mounted 4,000 gal tanks								

OSRO Equipment Listing

Containment Boom	Feet	Manufacturer	Flotation Skirt Length					Misc.
18"	10000	More	12"					
22"								
30"								
26"								
42"								

Skimming Equipment	QTY	Manufacturer	GPM					Misc.
ACME Weir Skimmer								
TDS 118 Drum Skimmer								
TDS 136 Drum Skimmer								
GT 185 Drum Skimmer								
Action 36" Drum Skimmer								
Barrell Mounted Mop Wringer								
Horizontal Mip Wringer								
Vertical Mop Wringer								
Weir Skim Pack								
Crucial 36" Drum Skimmer								

Pumping Equipment	QTY	Manufacturer						Misc.
2" Peristalic - Petroleum								
2" Peristalic - Chemical								
3" Peristalic -								
2" Cintriffical pump	6	Wacker						
2", 3" & 4" Double Diaphragm	3	ARO						2" POLY
3" & 4" Diaphragm								
3" Submersable - Pneumatic								
6" Bypass & Transfer Pumps								

Marine Response Boats / Vessels	QTY	Manufacturer	Motor Size	Length (FT)	Personnel Capacity			Misc.
25' to 42'								
25' to 42'								
Johnboat	2		45	16'	4			

Service Center Personnel	Techs	Supervisors	Managers	Admin	Part-Timers			Total
Personnel	8	2	2	2				

OSRO Equipment Listing

SAN ANTONIO SERV CTR ***January*** 2011

Vacuum Equipment	**QTY**	**CFM**	**GPM**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Misc.**
3,300 gal. Liquid Truck								
3,300 gal. High Dump Industrial Loader								
Industrial Loader								
Liquid Ring Vacuum Truck								
4,500 gal. Liquid VacuumTruck	1			1211				
2,300 gal. Combination Machine								
2,000 gal. Quickload Vacuum Truck								
2,500 gal. Liquid Vacuum Truck	1			TBD				
6,000 gal. Liquid Vacuum Tanker	1			TBD				

High Pressure Water Equipment	**QTY**							**Misc.**
2,000 psi pressure washer	1			1543				
4,000 psi line jetter								
3,000 psi high volume line jetter								
20,000 psi hydroblaster								

Response Vehicles	**QTY**							**Misc.**
20 ft. First Responder Van (Haz)								
1 Ton Response Van								
24 ft. Emergency Response Truck (ERT)								
Haz Response Unit (ambulance type)								
Emergency Response trailer	1							
F-150	1			3250				
F-250								
F-350	9			3131	3209	3208	3216	3218,3147,3119,3098,3146
Dodge 3500 (Stake Bed)	1			3152				

Roll Off Equipment	**QTY**							**Misc.**
Bobtail Roll-off truck	2			6081	6029			
PUP roll-off trailer								
Mack Tractors	5			7075	7100	7111	7112	4589
Double bottom roll-off trailer	1			1465				
40 cy Debris boxes	3			808	827			
30 yd. Debris boxes	7			913	908	957	99038	91,090,791,799,041
25 yd. Soil boxes	5			660	99056	673	686	99022
20 yd. soil boxes	5			626	615	99015	600	99016
20 yd. Vacuum boxes								
~~Skid mounted frac tanks (11,000)~~								
Skid mounted flatbeds								
Skid mounted 4,000 gal tanks								

OSRO Equipment Listing

Containment Boom	Feet	Manufacturer	Flotation Skirt Length					Misc.
10"								
18"	1400	More	12"	Hard Boom				
6"								
26"								
42"								

Skimming Equipment	QTY	Manufacturer	GPM					Misc.
ACME Weir Skimmer								
TDS 118 Drum Skimmer								
TDS 136 Drum Skimmer								
GT 185 Drum Skimmer								
36" Drum Skimmer	1	Elastec						double barrel skimmer
Barrell Mounted Mop Wringer								
Horizontal Mip Wringer								
Vertical Mop Wringer								
Skim Pack - 18000	1	Skim-Pack						
Crucial 36" Drum Skimmer								

Pumping Equipment	QTY	Manufacturer						Misc.
2" Peristalic - Petroleum								
2" Peristalic - Chemical								
3" Peristalic -								
2", 3" & 4" Double Diaphragm	5	ARO/Wilden						all 2" (2 stainless, 2 aluminum, 1 poly)
3" & 4" Diaphragm								
3" Submersable - Pneumatic								
6" Bypass & Transfer Pumps								

Marine Response Boats / Vessels	QTY	Manufacturer	Motor Size	Length (FT)	Personnel Capacity			Misc.
Johnboat	2		5/15	10/14	40212			

Service Center Personnel	Techs	Supervisors	Managers	Admin	Part-Timers			Total
Personnel	15	5	2	3				25

OSRO Equipment Listing

Gonzales, La Service Center January **2011**

Vacuum Equipment	**QTY**	**CFM**	**GPM**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Misc.**
3,300 gal. Liquid Truck	0							sub-contractor available for vacuum trucks
3,300 gal. High Dump Industrial Loader	0							
Industrial Loader	0							
Liquid Ring Vacuum Truck	0							
4,000 gal. Liquid Truck	0							
2,300 gal. Combination Machine	0							
2,000 gal. Quickload Vacuum Truck	0							
2,500 gal. Liquid Vacuum Truck	0							
6,000 gal. Liquid Vacuum Tanker	0							

High Pressure Water Equipment	**QTY**							**Misc.**
2,000 psi pressure washer	1			1544				
4,000 psi line jetter	0							
3,000 psi high volume line jetter	0							
20,000 psi hydroblaster	0							

Response Vehicles	**QTY**							**Misc.**
20 ft. First Responder Van (Haz)	0							
1 Ton Response Van	0							
24 ft. Emergency Response Truck (ERT)	0							
Haz Response Unit (ambulance type)	0							
Emergency Response trailer	2			416				
F-150	0							
F-250	1			3230				
F-350	4			3201	3229	3226	3231	3156
F-450 (Stake Bed)	1			4517				

Roll Off Equipment	**QTY**							**Misc.**
70,000 lb. Roll-of truck	0							sub-contractor available for roll-off trucks
PUP roll-off trailer	0							
Double bottom roll-off trailer	0							
20 yd. Debris boxes	0							
20 yd. Soil boxes	0							
20yd Dewatering box	0							
20 yd. Vacuum boxes	0							
~~Skid mounted frac tanks (11,000)~~	0							
Skid mounted flatbeds	0							
Skid mounted 4,000 gal tanks	0							

OSRO Equipment Listing

Containment Boom	Feet	Manufacturer	Flotation Skirt Length					Misc.
10"	0							
18"	1000	More boom	12"					
30"	0							
26"	0							
42"	0							

Skimming Equipment	QTY	Manufacturer	GPM					Misc.
ACME Weir Skimmer	0							
TDS 118 Drum Skimmer	0							
TDS 136 Drum Skimmer	0							
GT 185 Drum Skimmer	0							
Action 36" Drum Skimmer	0							
Barrell Mounted Mop Wringer	0							
Horizontal Mip Wringer	0							
Vertical Mop Wringer	0							
Weir Skim Pack	0							
Crucial 36" Drum Skimmer	0							

Pumping Equipment	QTY	Manufacturer						Misc.
2" Peristalic - Petroleum	0							
2" Peristalic - Chemical	0							
3" Peristalic -	0							
1", 2", ' Double Diaphragm	4	Versamatic						1" poly, 1" alum.,2" stnls, 2" poly
3" & 4" Diaphragm	0							
3" Submersable - Pneumatic	0							
6" Bypass & Transfer Pumps	0							

Marine Response Boats / Vessels	QTY	Manufacturer	Motor Size	Length (FT)	Personnel Capacity			Misc.
25' to 42'	1	Custom flat	Twin 5	28	4			
25' to 42'	0							
Johnboat	1	Unknown	25hp	14ft	2			

Service Center Personnel	Techs	Supervisors	Managers	Admin	Part-Timers			Total
Personnel	5	3	1	1	1			9

OSRO Equipment Listing

TYLER SERV CTR ***January*** **2011**

Vacuum Equipment	**QTY**	**CFM**	**GPM**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Vehicle ID**	**Misc.**
3,300 gal. Liquid Truck	1			5051				
3,300 gal. High Dump Industrial Loader	0							
Industrial Loader	0							
Liquid Ring Vacuum Truck	0							
4,000 gal. Liquid Truck	0							
2,300 gal. Combination Machine	0							
2,000 gal. Quickload Vacuum Truck	0							
2,500 gal. Liquid Vacuum Truck	0							
6,000 gal. Liquid Vacuum Tanker	0							

High Pressure Water Equipment	**QTY**							**Misc.**
2,000 psi pressure washer	0							
4,000 psi line jetter	1			1551				
3,000 psi high volume line jetter	0							
20,000 psi hydroblaster	0							

Response Vehicles	**QTY**							**Misc.**
20 ft. First Responder Van (Haz)	0							
1 Ton Response Van	0							
24 ft. Emergency Response Truck (ERT)	0							
Haz Response Unit (ambulance type)	0							
Emergency Response trailer	1			1461				
F-150	0							
F-250	2			3219	3164			
F-350	2			3247	3203			
F-450 (Stake Bed)	0							

Roll Off Equipment	**QTY**							**Misc.**
70,000 lb. Roll-of truck	1			6078				
PUP roll-off trailer	0							
Double bottom roll-off trailer	0							
20 yd. Debris boxes	0							
20 yd. Soil boxes	11			654,677	99030, 662	667, 682	665, 99049	650, 986, 693
20yd Dewatering box	1			99057				
20 yd. Vacuum boxes	0							
~~Skid mounted frac tanks (11,000)~~	0							
Skid mounted flatbeds	0							
Skid mounted 4,000 gal tanks	0							

OSRO Equipment Listing

Containment Boom	Feet	Manufacturer	Flotation Skirt Length					Misc.
10"	0							
18"	1000		12"					
30"	0							
26"	0							
42"	0							

Skimming Equipment	QTY	Manufacturer	GPM					Misc.
ACME Weir Skimmer	0							
TDS 118 Drum Skimmer	0							
TDS 136 Drum Skimmer	0							
GT 185 Drum Skimmer	0							
Action 36" Drum Skimmer	0							
Barrell Mounted Mop Wringer	0							
Horizontal Mip Wringer	0							
Vertical Mop Wringer	0							
Weir Skim Pack	0							
Crucial 36" Drum Skimmer	0							

Pumping Equipment	QTY	Manufacturer						Misc.
2" Peristalic - Petroleum	0							
2" Peristalic - Chemical	0							
3" Peristalic -	0							
1", 2", ' Double Diaphragm	2							1" Poly & 2" aluminum
3" & 4" Diaphragm	0							
3" Submersable - Pneumatic	0							
6" Bypass & Transfer Pumps	0							

Marine Response Boats / Vessels	QTY	Manufacturer	Motor Size	Length (FT)	Personnel Capacity			Misc.
25' to 42'	0							
25' to 42'	0							
Johnboat	1	Unknown	25hp	14ft	3			

Service Center Personnel	Techs	Supervisors	Managers	Admin	Part-Timers			Total
Personnel	6	0	1	1	2			9

EMERGENCY RESPONSE FEE SCHEDULE – 23 JUNE 2011

PERSONNEL	RATE PER UNIT
Principal	160.00 hour
Incident Commander	160.00 hour
Industrial Hygienist	150.00 hour
Project Manager	150.00 hour
Engineer	150.00 hour
Zone Manager	125.00 hour
Health & Safety Officer	120.00 hour
Chemist	120.00 hour
Legal Specialist	300.00 hour
Contracting Officer	95.00 hour
Supervisor	84.00 hour
Marine Operator (Licensed Captain)	80.00 hour
Trained Diver	80.00 hour
Logistics/Disposal Coordinator	75.00 hour
Foreman	60.00 hour
Traffic Control Supervisor	60.00 hour
Equipment Operator	54.00 hour
Marine Operator (<28 ft)	48.00 hour
Quality Assurance Officer	50.00 hour
Welder	50.00 hour
Mechanic	48.00 hour
Field Technician	48.00 hour
Sampling Technician	45.00 hour
Biohazardous Technician	40.00 hour
Administrative Technician	48.00 hour
Field Clerk	42.00 hour
Office Staff	40.00 hour

PROFESSIONAL DOCUMENTATION

Florida State Report	500.00 each
CAD Drawings	75.00 hour

Other Reports – billed at hourly rate of personnel preparing the report(s).

VEHICLES	HOUR	DAY
Supervisor – Response Vehicle	34.00	360.00
Response Vehicle	22.00	275.00
Four Wheel Response Vehicle	28.00	300.00
Tractor Tanker	120.00	2,160.00
Tractor with Dump Trailer	120.00	2,160.00
Tractor with Flatbed/Lowboy	120.00	2,160.00
Tractor with Box Trailer	120.00	2,160.00
Tractor with Rolloff Trailer (2 box)	150.00	2,700.00
Roll Off Truck	75.00	1,200.00
Roll Off Tank (4,000 Gallon)	--	75.00
Roll Off Box (20 Cubic Yard)	--	35.00
Roll Off Flatbed (25 Foot)	--	25.00
Roll Off Closed Top	--	45.00
Vacuum Box	--	120.00
Liquid Ring Truck – 3,300 Gallon*	125.00	2,250.00
Industrial Vacuum Truck – 3,300 Gallon*	100.00	1,800.00
Liquid Truck – 2,500-4,000 Gallon*	100.00	1,800.00
Combination Truck – 2,300 Gallon*	100.00	1,800.00
Vaccon Combination*	150.00	2,700.00
Industrial Loader*	180.00	3,240.00
Guzzler (Predator)*	180.00	3,240.00
Vacuum Truck with High Rail*	250.00	4,500.00

*Four Hour Minimum Charge plus Decontamination, if necessary.

SPECIALTY VECHICLES AND EQUIPMENT

High Pressure Water Jet	125.00	2,250.00
Dump Truck – 18 Yard	75.00	1,250.00
ATV – 4-Wheeler	--	300.00
ERT/QRT (Haz-Mat Response)	75.00	1,250.00
Portable Command Center	--	300.00
Mechanic/Welding Truck	75.00	1,250.00
Boom Truck/Lift Gate	50.00	900.00
Stake Body Truck	40.00	720.00
Boom Truck 4X4	40.00	720.00

MILEAGE – In addition to daily above rates for projects 50 miles or greater from responding service center. Calculated from equipment location at time of call.

Pickup Truck/Personnel Vehicle	0.50/mile
Vacuum Truck/Response Van	0.90/mile
Tractor	1.75/mile

EMERGENCY RESPONSE FEE SCHEDULE – 23 JUNE 2011

ANCILLARY EQUIPMENT	RATE PER DAY
Frac Tank	100.00
Mini Frac Tank	50.00
Poly Tank – 500 Gallon	30.00
Poly Tank – 1,000 Gallon	40.00
Poly Tank – 3,000 Gallon	75.00
Fast Tank – 2,300 Gallon	100.00
Roll Off Trailer	150.00
Equipment Trailer	25.00
Drum Trailer	75.00
Containment Boom Trailer (Box)	35.00
Pressure Washer	200.00
Steam/Pressure Cleaner	450.00
Welder/Generator Combo	200.00
Light Tower/Generator	200.00
Light Stand (>1,000W)	100.00
Air Handlers (Portable)	25.00
Mercury Vacuum	500.00
Sampling Auger	25.00
Chain Saw	50.00
Sod Cutter	150.00
Gas Blower	20.00
Decontamination Station	350.00
Decontamination Pool	250.00
Cylinder Recovery Casket – Large	800.00
Fat Boy Coffin	550.00
Chlorine Coffin	600.00
Generator – Mobile, Trailer Mounted	630.00
Generator – Portable	270.00
Air Compressor – Mobile, Trailer Mounted	270.00
Air Compressor – Portable	180.00
Terminator – Fire Fighting Equipment	1,000.00
Flare Stack	250.00
Grounding & Bounding Equipment	350.00
Non-Sparking Tools	150.00
Nitrogen Purge System	300.00
3 Stage Corken Compressor	1,500.00
Traffic Cone (Each)	2.00
Hot/Cold Tap Boring Tool (Plus Fittings)	150.00 use
Midland Rail Kit	250.00 use

HARD BOOM	RATE PER FOOT PER DAY
10”	1.50
18”	1.75
24”	2.00
27”	2.50
32”	3.50
36”	4.25
42”	5.00

HEAVY EQUIPMENT	RATE PER DAY
Backhoe – Rubber Tire	500.00
Backhoe – with Extended Hoe	500.00
Bobcat	350.00
Bulldozer (450 or Equivalent) 70-79 HP	600.00
Bulldozer (550 or Equivalent) 80-89 HP	735.00
Bulldozer (650 or Equivalent) 90-99 HP	750.00
Bulldozer (7000 or Equivalent) 100-125 HP	830.00
Forklift – 4WD, All Terrain 8,000 lb.	425.00
Forklift – Telescopic, Pettibone	480.00
Front End Loader (544 or Equivalent)	650.00
Front End Loader (644 or Equivalent)	815.00
Trackhoe (19-20’ Dig Depth, 29-30,000lb)	637.50
Trackhoe (21-22’ Dig Depth, 44-46,000lb)	825.00
Trackhoe (12-23’ Dig Depth, 53-55,000lb)	906.00
Compactor	550.00
Mini excavator	450.00
Gradall	2,000.00

Specialty Equipment available at cost plus.
Mobilization and De-Mobilization will be billed at hourly rates.

ABSORBENTS

5” Absorbent Boom	105.00 pkg
8” Absorbent Boom	180.00 pkg
Sorbent Pads – 100 ct	90.00 pkg
Sorbent Pads – Chemical – 100 ct	94.50 pkg
Sorbent Rug	225.00 roll
Sorbent Roll	125.00 roll
Sorbent Roll -- Chemical	145.00 roll
Absorbent Clay	15.00 bag
Encapsulating Absorbent – Chemical	30.00 bag
Portland Cement	18.00 bag
Vermiculate	15.00 bag
Shredded Sorbent (Acid/Base)	176.00 pkg
Snare On A Rope	65.00 pkg
Snare – Bag	45.00 pkg
Sweep – Oil – 50’	72.00 pkg
Visquene	96.00 roll
Poly Bags	63.00 roll
Caustic Neutralizer	150.00 bag
Acid Neutralizer	40.00 bag
Mercury Absorbent Powder	94.00 bag
Mercury Vapor Absorbent	25.00 bag
Soda Ash	30.00 bag

EMERGENCY RESPONSE FEE SCHEDULE – 23 JUNE 2011

PERSONAL PROTECTIVE EQUIPMENT AND EXPENDABLES

Levels of Protection – Rate per person, per day. Includes needed expendables for initial dress only (except Level "A"). Cost of equipment, additional expendables billed separately.

EPA Level "D"	50.00
EPA Level "C"	85.00
EPA Level "B"	150.00
EPA Level "A" (Plus Level A Suit)	200.00
NFPA Fire Bunker Gear	150.00
NFPA Fire Bunker Gear (Decontamination)	150.00

PERSONNEL EQUIPMENT — RATE PER DAY

Cascade System – Two Way	200.00
Air Packs – SCBA/SKA Packs	40.00
Confined Space Entry Package	350.00
Night Vision Binoculars	50.00
SCUBA Equipment	85.00

SAMPLING and TESTING EQUIPMENT

OVA Meter	200.00 day
Four Gas Meter	100.00 day
Soil Sampler (5 Gram, EPA Method 8260)	45.00 each
Mercury Vapor Analyzer	350.00 day
Multi-Rae PID	350.00 day
pH Meter	25.00 day
pH Paper	8.40 roll
Haz-Mat Test Indicator	50.00 test
Oil Classification Kit	30.00 each
Air Sampling Pump	35.00 day
Air Sampling Tube	15.00 each
Hazard Classification (Field Test)	20.00 test
Hazardous Category Test	30.00 test
Geiger Counter	35.00 day
Mercury Spill Kit	220.00 each
Dexsil Clor-D-Tect 1000 Halogen Kit	20.00 each
Dexsil Clor-D-Tect Q4000 Halogen Kit	24.00 each
Hydroclor Q4000 Halogen Kit	24.00 each
Thief 25 ml	2.75 each
Thief 75 ml	4.00 each
Disposable Balers	21.00 each
Coliwasa	29.00 each
Sample Can – 1 Gallon	8.00 each
Sample Can – 5 Gallon	17.75 each
Sample Jar – 1 lt EPA 2000 Series	6.25 each
Sample Jars – 1 qt – Non-EPA – Case of 12	16.00 case
Sample Jars – 1 pt – Non-EPA – Case of 12	12.00 case
Sample Cooler (Plus Shipping Charge)	32.40 each
Deionized Water – 5 Gallon	15.00 each
Manifest	1.00 each
Label	1.00 each

EXPENDABLES

Level "A" – Limited Use Encapsulated Suit	700.00 each
Respirator Cartridges – Mercury	40.00 pair
Respirator Cartridges – OVAG	26.00 pair
Respirator Cartridges – HEPA	7.00 pair
Respirator Cartridges – Other	Cost Plus
Cascade System Refill	30.00 bottle
Airpack Refill	7.50 each
Duct Tape (Non PPE Use)	5.50 roll
Hazard Tape (Area Security)	28.00 roll
TYVEK Suit	6.00 each
TYVEK Suit with Hood	8.00 each
Poly-Coated Coverall	10.00 each
Saranex Suit (Tychem SL)	34.00 each
Level "B" Suit	98.00 each
Rain Gear (in addition to PPE)	35.00 each
Chest Wader	140.00 each
Hip Wader	56.00 each
Splash Suit	153.00 each
PVC-Nitrile Gloves	3.50 pair
Disposable Gloves (inner)	36.00 box
Work Gloves	5.00 pair
Silver-Shield Gloves	10.00 pair
Butyl Gloves	46.00 pair
Latex Booties	4.50 pair
Biohazardous Box	40.00 each
Biohazardous Bag	1.00 each
Sharps Container (Small)	12.00 each
Sharps Container (Large)	30.00 each
Biosolution	25.00 bottle
Liquid Spill Control (Remedial Solution)	35.00 gallon
Sodium Hypochlorite Solution 5%	15.00 gallon
Degreaser (Simple Green)	27.00 gallon
Citrusol Cleaner	56.00 gallon
Shrink Wrap	18.50 roll
Plug-N-Dike	28.00 application
Wooden Stakes	16.00 bundle
Siphon Pump	23.00 each
Stress Management (Liquids)	10.00 person/day

Liner, Drum, Corrugated	16.00 each
Liner, Drum, Poly	5.90 each
Liner, Drum, Chemical Resistant	20.00 each
Liner, Dumpster, Roll-Off	53.00 each
Liner, Dump Truck	76.50 each
Liner, Fast Tank	160.00 each

EMERGENCY RESPONSE FEE SCHEDULE – 23 JUNE 2011

CONTAINERS	RATES PER EACH
55 Gallon Drum, Steel, New – 17C	75.00
55 Gallon Drum, Steel, New – 17E	65.00
55 Gallon Drum, Steel, New – 17H	90.00
55 Gallon Drum, Steel, Recon – 17E	45.00
55 Gallon Drum, Steel, Recon – 17H	50.00
20 Gallon Drum, Poly, Open Top, New	106.00
30 Gallon Drum, Poly, Open Top, New	120.00
55 Gallon Drum, Poly, Open Top, New	166.00
8 Gallon Drum, Steel, Salvage, New	65.00
15 Gallon Drum, Steel, Salvage, New	90.00
30 Gallon Drum, Steel, Salvage, New	110.00
55 Gallon Drum, Steel, Salvage, New	135.00
85 Gallon Drum, Steel, Salvage, New	245.00
85 Gallon Drum, Steel, Salvage, Recon	175.00
20 Gallon Drum, Poly, Salvage, New	70.00
30 Gallon Drum, Poly, Salvage, New	73.00
65 Gallon Drum, Poly, Salvage, New	181.00
85 Gallon Drum, Poly, Salvage, New	190.00
95 Gallon Drum, Poly, Salvage, New	235.00
85 Gallon Drum, Poly, Salvage, Recon	170.00
95 Gallon Drum, Poly, Salvage, Recon	185.00
5 Gallon Bucket	21.00
1 Cubic Yard, Non-Haz Box with Liner, Cover	54.00
1 Cubic Yard, Haz Box with Liner, Cover	93.00

PUMPS	RATES PER DAY
Plus Compressor Cost, Where Necessary	
1" Double Diaphragm	45.00
2" Stainless Steel Double Diaphragm	300.00
2" Teflon/Poly Double Diaphragm	300.00
2" Aluminum Double Diaphragm	300.00
3" Single Diaphragm	180.00
3" Stainless Steel Double Diaphragm	500.00
3" Aluminum Double Diaphragm	500.00
4" Double Diaphragm	500.00
2" Transfer Pump	300.00
3" Transfer Pump	315.00
4" Transfer Pump	345.00
6" Transfer Pump	650.00
6" Hydraulic/Centrifugal Pump	600.00
4" Poppit Pump ("Sludgemaster")	900.00
6" Mascerator Pump	990.00
High Volume Transfer Pump – Petroleum	3,600.00
High Volume Transfer Pump – Chemical	4,200.00
Diesel Peristal Pump 50.00 hour	600.00
Drum Vac Head	125.00
Diesel Hydraulic Unit 50.00 hour	900.00
Pressurized Liquid Transfer	1,000.00

SKIMMERS	RATES PER DAY
Plus Compressor Cost, Where Necessary	
36" Drum Skimmer	500.00
48" Drum Skimmer	600.00
72" Drum Skimmer	750.00
GT 185 Skimmer	2,000.00
Mini Foilex Skimmer	500.00
Foilex 150	1,500.00
Foilex 200	2,000.00
Foilex 250	3,000.00
Marco 28 Harbormaster	5,000.00
DIP 400	2,500.00
Manta Ray Floating Skimmer	150.00
Skim Pack	100.00
Power Pack	1,500.00

WATERCRAFT	RATES PER DAY
Plus Fuel at Cost Plus, Operator Not Included	
Command Vessel 95.00 hour	2,280.00
John Boat (15' and under)	175.00
Small Work Boat w/Motor, Trailer (16')	225.00
Medium Work Boat w/Motor, Trailer (18'-20')	500.00
Medium Work Boat w/Motor, Trailer (21'-23')	650.00
Large Work Boat w/Twin Motor, Trlr (24'-26')	775.00
Large Work Boat w/Twin Motor, Trlr (28')	900.00
Pontoon Boat w/Motor (22'-26')	360.00
Wave Runner (Investigation)	180.00
Vessels of Opportunity	Cost Plus

OPEN OCEAN EQUIPMENT – AVAILABLE UPON REQUEST

HOSES	
Petroleum (2" and 3"), Low Pressure	0.50 foot
Chemical (2" and 3"), Low Pressure	1.00 foot
Chemical Transfer	35.00 foot
Flex Hose – 6"	1.50 foot

COMMUNICATIONS	
Cellular Phones – Each	50.00 day
Marine Radios – Each	30.00 day
Two-Way Radios – Nextel – Each	25.00 day
Base Station w/Repeater	100.00 day
Remote Hardware Lines	Cost Plus
Laptop Computer	125.00 day
Facsimile Machine	15.00 day
Desktop Computer w/ Printer, Modem	125.00 day
GPS	25.00 day
Photographs with Processing	Cost Plus

EMERGENCY RESPONSE FEE SCHEDULE – 23 JUNE 2011

NOTES TO SWS ENVIRONMENTAL SERVICES RATE SHEET

PERSONNEL

- Personnel rates apply to personnel performing labor in support of the contract work (whether performed on-site or off-site). Rates stated are per person per hour with a four (4) hour minimum per person per day.
- There will be a per diem charge of $150.00/ person for work requiring an overnight stay for any employee.
- When an overnight stay is not required but the work day exceeds 12 hours, a meal allowance of $30.00/day/ person will apply.
- All equipment and personnel are billed portal-to-portal.
- Personnel will be billed at the corresponding rate stated herein for the time required to mobilize and restock all vehicles and equipment used in the performance of the contract.
- Standard Hours are 8:00 a.m. to 4:00 p.m. Monday through Friday, exclusive of designated holidays.
- Non-Standard Hours are all hours worked before 8:00 a.m. and after 4:00 p.m. Monday through Friday and any work performed on Saturday. Labor performed during Non-Standard Hours will be billed at one and one-half (1.5) times the rates set forth herein.
- Sunday and Holiday Hours will be two (2) times the rates set forth herein. Designated holidays are all designated “Federal Holidays” in addition to the day after Thanksgiving.
- A High-Hazard surcharge of $6.00/hour/person will be applied to standard hour rates for incidents that involve reactive, potential explosives, cylinders, risk of fire, or involving high-pressure vessels. The determination of a High-Hazard incident is the sole discretion of SWS. Premium rate multipliers apply.
- For Bio-Hazard responses, a premium of 40% will apply to all labor rates and multipliers.
- EPA Level C and D PPE include up to one change out per day. Additional change outs will be charged based upon the individual per item rate.
- In the event any personnel are engaged to provide testimony in any court or administrative proceeding, the rate for such person while testifying either at a deposition or hearing shall be two (2) times the hourly rate scheduled. Client shall be responsible for all charges related to any such testimony including travel and per diem whether requested by Client or required by subpoena by Client or any third party when such testimony relates to the project for which Client engaged SWS with minimum charge of $1000.00/ day for managers and $750.00 for all others.

EQUIPMENT

- All scheduled rates are exclusive of operators/drivers. Labor rates will be charged in accordance with the applicable category in the Personnel section.
- All equipment not listed on the current pricing schedule will be billed at cost plus markup.
- For purposes of computing daily rate charges, the term “daily” denotes 8 hours. After 8 hours, the hourly rate will be charged at 12.5% of the daily rate.
- Unless otherwise noted, equipment rates include fuel, grease, oil, maintenance, and insurance.
- A four (4) hour minimum will apply to all equipment. Transportation permits for oversized equipment and/or loads will be charged at cost plus markup. Escorts, if required, will be an additional charge in accordance with applicable rates for personnel and vehicles, or billed at cost plus markup.
- Cleaning, repairing and rebuilding of pumping equipment will be invoiced at cost plus markup.

SUBCONTRACTORS, EXPENDABLES, AND ADDITIONAL EQUIPMENT

- All third party rental equipment, subcontract services, materials and supplies not otherwise scheduled will be billed at cost plus markup.
- Cleaning, repair, or replacement charges will be assessed for equipment contaminated or damaged in performance of services. Equipment contaminated or damaged beyond repair will be charged at actual replacement cost plus markup.
- Scheduled prices shall be applicable to all personnel, materials, and equipment for the schedules herein, which are utilized in the performance of the work. If the rental or field purchase prices for materials and equipment or subcontracted labor are higher than what is in the rate schedule, or if any labor, equipment or materials are not readily available in-house (inclusive of SWS Contractor Program Network Subcontractors), these items will be invoiced at cost plus markup.
- Expendable items are subject to price increase based upon market fluctuations.

EMERGENCY RESPONSE FEE SCHEDULE – 23 JUNE 2011

NOTES TO SWS ENVIRONMENTAL SERVICES RATE SHEET (Continued)

TANKS AND CONTAINERS

- Any tanks and containers that require clean out or wash out will be charged at cost plus markup. Clean out charges will be based upon actual contents left in tank (clean out plus disposal). Replacement parts do not include labor. Repairs for damages or missing parts will be invoiced on a time-and-material basis cost plus markup.

OTHER CHARGES AND TERMS

- All work will be performed under SWS' standard insurance. Any additional insurance necessary to perform the work will be invoiced at cost plus markup.

- The rates contained in this schedule are exclusive of federal, state and local sales or use taxes and any permits required to perform.

- In the event SWS is required to purchase any licenses, easements, or rights of ingress or egress to obtain access of right-of-way to property necessary to perform the work, SWS shall be compensated for all costs incurred for such licenses, easements or rights on the basis of SWS' actual cost plus markup. In the event SWS is required to construct any rights-of-way and/or pavements or other property as a result of the work, SWS shall be compensated for such work performed on the basis of SWS' actual cost plus markup.

PAYMENT AND INVOICING PROCEDURES

- Payments due under each invoice within fifteen (15) days of the invoice date. Interest shall begin to accrue on the invoice due day on payments not received by such date at the smaller of (i) the maximum lawful interest rate or (ii) one and one-half per (1½%) percent per month. In the event payment is not made timely and SWS files a lien or bond claim on your account, an administrative charge of $500.00 will be assessed.

- In the event that Client disputes any portion of any invoice, Client shall provide SWS written notice of the dispute within 15 days of the invoice date. The written notice must specifically state the portion in dispute and describe the dispute in such detail that SWS has full notice of the dispute. Client hereby agrees that failure to provide such written notice within 15 days of the invoice date constitutes waiver of any such dispute and full payment of the invoice shall be provided to SWS. Further, Client agrees that the non-disputed portion of the invoice shall be paid within 15 days of the invoice date.

FUEL RECOVERY

- A fuel recovery fee will be added to the final invoice price for all transportation, disposal and fuel consuming equipment charges at the prevailing rate at the time work is performed. Please see the recovery fee link on our web site at www.swsenvironmental.com.

COST PLUS MARKUP

- Unless otherwise designated, "Cost Plus Markup" will be charged at SWS **Cost Plus THIRTY PERCENT (30%)**.

LEGAL REFERENCE

- All references to "SWS Environmental Services" or "SWS" are considered to be "Progressive Environmental Services, Inc. d/b/a SWS Environmental Services".

GARNER ENVIRONMENTAL SERVICES, INC.
1717 West 13th Street
Deer Park, Texas 77536
Telephone: (281) 930-1200
Fax: (281) 478-0296

RESPONSE EQUIPMENT LISTING

Corporate	Response Equipment Listing	Equipment Listing
Operations		June 2011

BOOM TYPE CODE		END CONNECTOR CODE	
F	Fence	**ASTM**	ASTM Std (D962-86)
FR	Fire	**BOLT**	Bolt Connector
PI	Inflatable (Press)	**HP**	Hinge & Pin
SI	Inflatable (Self)	**Z**	Quick-Connect Z
MR	Marsh (Upper air chamber with lower water chamber)	**RC**	Raised Channel
		SNAV	Slide (US Navy)
		SLOT	Slotted Tube
R	Round	**US1**	Universal Slide Type 1
SB	Weir Boom	**US2**	Universal Slide Type 2
OT	Other	**OT**	Other

BOOM EQUIPMENT

Name of Manufacturer	Model Number	Boom Type Code	Invent Length (feet)	Skirt Size (in.)	Float Size (in.)	End Connector Type Code	Time to Deploy	Storage Location	Owner
Acme Products Co.	OK CORRAL	R	13,330	12	6	Z	6.0	Deer Park	Garner
Acme Products Co.	SUPER-MINI	R	350	4	2.5	BOLT	2.0	Deer Park	Garner
Acme Products Co.	OK CORRAL	R	16,900	12	6	Z	6.0	La Marque	Garner
Acme Products Co.	OK CORRAL	R	5,000	12	6	Z	2.5	Port Arthur	Garner
Acme Products Co.	SUPER-MINI	R	100	4	2.5	BOLT	0.5	Port Arthur	Garner
Acme Products Co.	OK CORRAL	R	34,000	12	6	Z	6.0	Port Arthur	Garner

Corporate	Response Equipment Listing	Equipment Listing
Operations		June 2011

COMMUNICATIONS TYPE CODES			
AF	Aviation Frequency	**MF**	Marine Frequency
CP	Cellular Phone	**PAG**	Pager
COM	Command Post	**PHH**	Portable Hand Held
MOD	Computer w/modem	**SSB**	Single Side Band
FAX	Facsimile	**TP**	Telephone
FBS	Fixed Base Station	**OT**	Other

COMMUNICATIONS EQUIPMENT

Name of Manufacturer	Model Number	Comm Type	Nr. of Units	Frequency	Band	Range (miles)	Field Tunable		Storage Location	Owner
							Yes	No		
40' Garner Command Post		COM	1					X	Deer Park	Garner
26' Communications Trailer	MCC1	COM	1	931.462			X		Deer Park	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

RESPONSE VEHICLES

Name of Manufacturer	Response Vehicle	Number of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Wabash	48’ Box Vans, Sorbent Boom Trailers	2		X	Deer Park	Garner
Fruehauf	48’ Box Van, Sorbent Boom Trailer	1		X	Deer Park	Garner
Ford/Chevy	Pick-up Truck, 1 ton	20		X	Deer Park	Garner
Sooner	Emergency Response Trailer, 32'	3		X	Deer Park	Garner
Modern Mfg.	Boom Trailer, 20' Gooseneck	4		X	Deer Park	Garner
Ford/Chevy	Pick-up Truck, 1 ton (2 Deer Park & 4 Port Arthur)	6		X	Deer Park / Port Arthur	Garner
Ford/Chevy	Pick-up Truck, 1 ton	14		X	La Marque	Garner
Sooner	Emergency Response Trailer, 32'	1		X	La Marque	Garner
Modern Mfg.	Boom Trailer, 20' Gooseneck	3		X	La Marque	Garner
Iron Horse	Boom Trailer, 20 Gooseneck	3		X	La Marque	Garner
Modern Mfg.	Spill Trailer, 16' Lo-Boy	4		X	La Marque	Garner
Modern Mfg.	Haz-Mat Spill Trailer, 20’	2		X	La Marque	Garner
Ford	Pick-up Truck, 1 ton	7		X	Port Arthur	Garner
Sooner	Emergency Response Trailer, 32''	1		X	Port Arthur	Garner
Modern Mfg.	Trailer, Spill Response, 16' Lo-Boy	1		X	Port Arthur	Garner
Modern Mfg.	Boom Trailer, Gooseneck, 20’	3		X	Port Arthur	Garner
Gemini Cargo	Trailer, Haz-Mat, 19'	1		X	Port Arthur	Garner
Modern Mfg.	Spill Trailer, 20' Lo-Boy	2		X	Port Arthur	Garner
Modern Mfg.	Boom Trailer, Gooseneck, 20’	2		X	Port Arthur	Garner
Great Dane	53’ Box Van, Hard Boom	3		x	Port Arthur	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

BOOM EQUIPMENT

Name of Manufacturer	Model Number	Equipment Type	Quantity	Storage Location	Owner
Norfloat	A2	Buoy, Anchor Marker, Inflatable, 18” dia.	13	Deer Park	Garner
Polycord	600x1/4	Rope, Polypropylene, 1/4" x 600'	3	Deer Park	Garner
Polycord	600x1/2	Rope, Polypropylene, 1/2" x 600'	5	Deer Park	Garner
Polycord	600x3/8	Rope, Polypropylene, 3/8" x 600'	1	Deer Park	Garner
U.S. Anchor Mfg., Inc.	22#	Anchor, Galvanized Steel, 22 lb., Danforth Style	0	Deer Park	Garner
U.S. Anchor Mfg., Inc.	40#	Anchor, Galvanized Steel, 40 lb., Danforth Style	0	Deer Park	Garner
U.S. Anchor Mfg., Inc.	75#	Anchor, Galvanized Steel, 75 lb., Danforth Style	4	Deer Park	Garner
U.S Anchor Mfg. Inc.	100#	Anchor, Galvanized Steel, 100 Lb. Danforth Style	13	Deer Park	Garner
Norfloat	A2	Buoy, Anchor Marker, Inflatable, 18” dia.	20	Deer Park	Garner
Polycord	600 x1/4	Rope Polypropylene, 1/4” x 600’	3	Deer Park	Garner
Polycord	600 x ½	Rope Polypropylene, 1/2 “ x 600’	1	Deer Park	Ganrer
U.S. Anchor Mfg., Inc.	22 #	Anchor, Galvanized Steel, 18 lb., Danforth Style	0	Deer Park	Garner
U.S. Anchor Mfg., Inc.	40 #	Anchor, Galvanized Steel, 22 lb., Danforth Style	0	Deer Park	Garner
U.S. Anchor Mfg. Inc.	100 #	Anchor, Galvanized Steel, 100 #, Danforth Style	13	Deer Park	Ganrer
Norfloat	A2	Buoy, Anchor Marker, Inflatable, 18” dia.	2	La Marque	Garner
Polycord	600 x1/4	Rope Polypropylene, 1/4” x 600’	5	La Marque	Garner
Polycord	600 x ½	Rope Polypropylene, 1/2 “ x 600’	5	La Marque	Garner
U.S. Anchor Mfg., Inc.	22#	Anchor, Galvanized Steel, 22 lb., Danforth Style	8	La Marque	Garner
U.S. Anchor Mfg., Inc.	40#	Anchor, Galvanized Steel, 40 lb., Danforth Style	5	La Marque	Garner
Norfloat	A2	Buoy, Anchor Marker, Inflatable, 18” dia.	8	Port Arthur	Garner
Polycord	600 x 1/4	Rope Polypropylene 1/4 “ x 600 ‘	5	Port Arthur	Garner
Polycord	600 x 1/2	Rope Polypropylene 1/2 “ x 600’	5	Port Arthur	Garner
U.S. Anchor Mfg., Inc.	22 #	Anchor, Galvanized Steel, 22 lb., Danforth Style	12	Port Arthur	Garner
U.S. Anchor Mfg., Inc.	75#	Anchor, Galvanized Steel, 75 lb., Danforth Style	6	Port Arthur	Garner

Corporate	Response Equipment Listing	Equipment Listing
Operations		June 2011

AIR MONITORING EQUIPMENT				
Name of Manufacturer	**Miscellaneous Equipment**	**Number of Units**	**Storage Location**	**Owner**
Rae Systems	Mini RAE 2000	1	Deer Park	Garner
Airzona Instruments	Jerome X431	3	Deer Park	Garner
Ludlum	Model # 3	1	Deer Park	Garner
BW	Gas Alert Micro 5 PID	2	Deer Park	Garner
BW	4 Gas	6	Deer Park	Garner
BW	Gas Alert Micro 5	4	Deer Park	Garner
Ludlum	2241-2 Radiation Monitor	1	Deer Park	Garner
Sper Scientific	PH Meter	1	Deer Park	Garner
Dexsil	PetroFlag Hydrocarbon Test Kit	1	Deer Park	Garner
Chlorine	AC/ Kit	1	Deer Park	Garner
Rae	Mini Rae	4	La Marque	Garner
BW	Micro 5	4	La Marque	Garner
Rae	Ultra	4	La Marque	Garner
BW	4 Gas	1	La Marque	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

	Specialty Equipment			
Name of Manufacturer		**Number of Units**	**Storage Location**	**Owner**
Scott	Self Contained Breathing Apparatus(SCBA) with 12 extra bottles / Scott	12	Deer Park	Garner
	Bezt Valve / Off Loading Valve	2	Deer Park	Garner
	Chorine Emergency Kit A	1	Deer Park	Garner
	Chorine Emergency Kit B	1	Deer Park	Garner
	Chorine Emergency Kit C	1	Deer Park	Garner
	Vacuum Cleaner / Stainless Steel, Mercury, HEPA	3	Deer Park	Garner
	Cameras / Digital	10	Deer Park	Garner
	Confine Space Rescue Kits	2	Deer Park	Garner
	Coppus Blowers	2	Deer Park	Garner
	Air Compressors 11.8 cfm 90 psi	6	Deer Park	Garner
	Drum Crushers / Diesel Power	1	Deer Park	Garner
	Drum Crabber	5	Deer Park	Garner
	Generators	0	Deer Park	Garner
	Decontamination Pools 20” x 100’	2	Deer Park	Garner
	Fan, Ventilation 48’	3	Deer Park	Garner
	Artic Cat, Four Wheeler	2	Deer Park	Garner
	Light Stands	5	Deer Park	Garner
	Air Compressors (Portable)	5	La Marque	Garner
	HEPA Vacuums	0	La Marque	Garner
	Cameras / Digital	2	La Marque	Garner
	Artic Cat, Four Wheeler	2	La Marque	Garner
	Generators	4	La Marque	Garner
	Scare Guns	3	Port Arthur	Garner
	Self Contain Breathing Apparatus (SCBA)	10	Port Arthur	Garner
	Cameras / Digital	1	Port Arthur	Garner
	Chlorine Emergency Kit “C”	1	Deer Park	Garner
	Midland Kit	1	Deer Park	Garner
	Railcar Haz Hammock	1	Deer Park	Garner
	Mercury Vacuum	3	Deer Park	Garner
	Carbon Filter Systems	1	Deer Park	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

	Specialty Equipment / Continued			
	Wet & Dry Vacuum with HEPA Filter	1	Deer Park	Garner
	100 Watt Explosion Proof Light Sets	2	Deer Park	Garner
	Decon Pools 4' x4' x14' 5"	2	Deer Park	Garner
	Spill Guard 6' x 4' x8"	1	Deer Park	Garner
	Drum Dolly	4	Deer Park	Garner
	3/4 " Core Sampler	1	Deer Park	Garner
	Soil Sampler (boring) Kit	1	Deer Park	Garner
	Self Contained Breathing Apparatus (SCBA)	9	Deer Park	Garner
	Generators (Portable)	0	Deer Park	Garner
	Weed Eaters	2	Deer Park	Garner
	Air Compressors (Portable)	9	Deer Park	Garner
	Light Stand (Portable)	10	Deer Park	Garner
	Coppus Blower	1	Deer Park	Garner
	Chain Saw	3	Deer Park	Garner
	Tank Truck Emergency Transfer Valve	1	Deer Park	Garner
	Air Horn, 6"	1	Deer Park	Garner
	Fan Ventilation, 48"	1	Deer Park	Garner
	Fan Ventilation, 16" Port A Cool with water Mister	1	Deer Park	Garner
	Digital Cameras	4	Deer Park	Garner
	Coppus Blowers	1	Port Arthur	Garner
	Air Compressors	3	Port Arthur	Garner
	Scare Guns	4	Port Arthur	Garner
	Pressure Washers	0	Port Arthur	Garner
	Weed Eaters	1	Port Arthur	Garner
	Artic Cat , Four Wheeler	1	Port Arthur	Garner

Corporate	Response Equipment Listing	Equipment Listing
Operations		June 2011

A	Auger/Screw	**D**	Diesel
C	Fire	**E**	Electric
P	Parastolic	**G**	Gasoline
R	Reciprocating	**H**	Hydraulic
I	Rotary/Flexible impeller	**P**	Pneumatic
OT	Other	**OT**	Other

PUMP EQUIPMENT

Name of Manufacturer	Model Number	Pump Type Code	Drive Type Code	Suction/ Discharge Size (inches)	Mfg. Pump Rate (gpm)	Quantity	Storage Location	Owner
Aro/Ingersoll Rand	KO176-44	P	P	1.0	120	2	Deer Park	Garner
Honda	WXT-20	G	I	2.0	180	15	Deer Park	Garner
Yanmar	LD-40/2	D	I	2.0	180	2	Deer Park	Garner
Honda	WXT-30	G	I	3.0	275	1	Deer Park	Garner
Wilden	Model M	P	P	3.0	240	5	Deer Park	Garner
Versa-Matic		OT	P	2.0	140	1	Deer Park	Garner
Versa-Matic		OT	P	1.5	140	1	Deer Park	Garner
Honda	EPT2	G	I	3.0	275	1	Deer Park	Garner
Wisconsin/Multi Quip		D	I	3.0	185	1	Deer Park	Garner
Yamada	POLY	P	P	3.0	200	1	Deer Park	Garner
Various		D	I	2.0	200	5	Deer Park	Garner
Various		G	I	2.0	190	2	Deer Park	Garner
Versamatic	STAINLESS	P	P	2.0	140	2	Deer Park	Garner
Honda	WXT-20	G	I	2.0	180	1	La Marque	Garner
Yanmar	LD-40/2	D	I	2.0	180	5	La Marque	Garner
Wilden	Model M	OT	P	3.0	240	0	La Marque	Garner
Acme Products Co., Inc.	FS-150A	G	I	1.5	275	1	Port Arthur	Garner
Honda	WXT-20	G	I	2.0	180	6	Port Arthur	Garner
Yanmar	LD-40/3	D	I	2.0	200	2	Port Arthur	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

RESPONSE BOAT TYPE CODES		TRANPORTATION METHOD CODES	
BAY	Bay Waters	**NT**	Normal Trailer
JB	Jon Boat	**WO**	Water Only
LFB	Large Flat Bottom	**WL**	Wide load Trailer
OFF	Offshore	**OT**	Other
PRO	Protected Waters		
TC	Towing Capable		
OT	Other		

RESPONSE BOATS

Name of Manufacturer	Model Number	Boat Type Code	Horse Power	Normal Crew Size	Length / Beam	Draft Limit	Number of Boats	Transport Method Code	Storage Location	Owner
Alumacraft	12	PRO	0	1	12	1’	2	NT	Deer Park	Garner
Custom Flat	1650	JB	25	2	16'	1'	7	NT	Deer Park	Garner
Custom Flat	20	LFB	40	2	20' / 6'	2'	1	NT	Deer Park	Garner
Custom Build	30	BAY	300	3	30’ / 8’	2’	1	NT	Deer Park	Garner
Silver Ships	30’	BAY	450	3	30’ / 8’	2	1	NT	Deer Park	Garner
Pirogue	12’	OT	0	1	12' / 2"	3"	2	NT	Deer Park	Garner
Various	12’	JB	25	1	12' / 3"	1'	2	NT	Deer Park	Garner
Scully	28’	BAY	230	2	28’ / 8’	8”	1	NT	Deer Park	Garner
Alumaweld	1650	JB	25	3	16' / 6'	1'	4	NT	La Marque	Garner
Custom Boat Mfg.	1649R	JB	30	2	16' / 6'	2'	1	NT	La Marque	Garner
Broadhead	24	BAY	150	3	24’ / 8’	2’	1	NT	La Marque	Garner
Alumaweld	1650	JB	25	2	16' / 6'	1'	5	NT	Port Arthur	Garner
Alumaweld	20	BAY	40	2	20' / 0'	2'	1	NT	Port Arthur	Garner
Alumaweld	1450	JB	25	2	14' / 0"	2"	1	NT	Port Arthur	Garner
Lobell	28’	BAY	200	3	28’ / 8’	2’	1	NT	Port Arthur	Garner

Corporate	Response Equipment Listing	Equipment Listing
Operations		June 2011

SKIMMER TYPE CODES			
FS	Floating Suction	**HIP**	Hydrodynamic Inclined Plane
IV	Induced Vortex	**OB**	Oleophilic Belt
OD	Oleophilic Disk	**OR**	Oleophilic Rod
PW	Paddle-Wheel	**SK**	Sock
W	Weir	**OT**	Other

SKIMMER EQUIPMENT

Name of Manufacturer	Model Number	Skimmer Type Code	Number of Units	Mfg. Recovery Rate (gpm)	Hose Size Suction/Discharge (inches)	Time to Deploy	Storage Location	Owner
Acme Products Co., Inc.	FS400ASK-39T	W	3	275	3.0	1.5	Deer Park	Garner
Douglas Engineering	4200SH Skim-Pak	FS	2	5 - 68	2.0	5	Deer Park	Garner
Crucial Inc.	1D18P-23	OT	2	25	2.0	.5	Deer Park	Garner
Crucial Inc.	1D18P-36	OT	5	36	2.0	.5	Deer Park	Garner
Crucial Inc.	VSP-3”	W	2	550	3.0	1.5	Deer Park	Garner
Crucial Inc.	RF-Floating Head	W	1	200	3.0	1	Deer Park	Garner
Douglas Engineering	4200SH Skim-Pak	FS	2	5 - 68	2.0	.5	Deer Park	Garner
Marco	Sidewinder 14	OB	3	70	3.0	.5	Deer Park	Garner
Marco	Harbor 28	OB	1	70	2.0	.5	Deer Park	Garner
Elastec	Mini Max, 20"	OT	1	20	2.0	1.	Deer Park	Garner
Acme Products Co., Inc.	FS400ASK-39T	W	1	275	3.0	1.0	La Marque	Garner
Crucial Inc.	1D18P-23	OT	3	25	2.0	.5	La Marque	Garner
Acme Products Co., Inc.	FS400ASK-39T	W	1	275	3.0	.5	Port Arthur	Garner
Crucial Inc.	1D18P-36	OT	3	25	2.0	.5	Port Arthur	Garner
Elastec	Double Drum	OT	1	60	2.0	.5	Port Arthur	Garner

Corporate	Response Equipment Listing	Equipment Listing
Operations		June 2011

PU	Portable Vacuum Pump Units	D	Diesel
SS	Super Sucker	E	Electric
VT	Vacuum Truck	G	Gasoline
OT	Other	H	Hydraulic
		P	Pneumatic
		OT	Other

VACUUM SYSTEM EQUIPMENT

Name of Manufacturer	Model Number	System Type Code	Drive Type Code	Suction (inches)	Number of Units	Mfg. Recovery Rate (gpm)	Storage Capacity (gallon)	Hose Invent (feet)	Storage Location	Owner
Safety Vac	449222	OT	D	14	1	40	150	200	Deer Park	Garner
Press Vac International		VT	D	27.0	6	80	3000	200	La Marque	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

SORBENT TYPE CODE		COMPOSITION CODE	
B	Boom	**M**	Mineral
PAD	Pad	**NO**	Natural Organic
PT	Particulate	**S**	Synthetic
ST	Sheet	**OT**	Other
SW	Sweep		
OT	Other		

SORBENTS

Name of Manufacturer	Model Number	Sorbent Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Crucial, Inc.	OS-15	OT	S	1000		X		X	Deer Park	Garner
Complete Environmental Products	GES-P100	PAD	S	120		X		X	Deer Park	Garner
Complete Environmental Products	GES-P200	PAD	S	0		X		X	Deer Park	Garner
Complete Environmental Products	GES-EP100	PAD	S	160		X		X	Deer Park	Garner
Complete Environmental Products	GES-P50	PAD	S	150		X		X	Deer Park	Garner
Complete Environmental Products	GES-B510	B	S	120		X		X	Deer Park	Garner
Complete Environmental Products	GES-B810	B	S	114		X		X	Deer Park	Garner
Complete Environmental Products	GES-R144	ST	S	150		X		X	Deer Park	Garner
Complete Environmental Products	GES-SW100	SW	S	40		X		X	Deer Park	Garner
Complete Environmental Products	GES-PART25	PT	S	10		X		X	Deer Park	Garner
Crucial, Inc.	OS-15	OT	S	10		X		X	La Marque	Garner
Complete Environmental Products	GES-P100	PAD	S	100		X		X	La Marque	Garner
Complete Environmental Products	GES-B510	B	S	20		X		X	La Marque	Garner
Complete Environmental Products	GES-B810	B	S	20		X		X	La Marque	Garner
Complete Environmental Products	GES-R144	ST	S	10		X		X	La Marque	Garner
Complete Environmental Products	GES-SW100	SW	S	30		X		X	La Marque	Garner
Complete Environmental Products	GES-PART25	P	S	40		X		X	La Marque	Garner
Crucial, Inc.	OS-15	OT	S	150		X		X	Port Arthur	Garner
Complete Environmental Products	GES-P100	PAD	S	100		X		X	Port Arthur	Garner
Complete Environmental Products	GES-P200	PAD	S	75		X		X	Port Arthur	Garner

Corporate Operations	Response Equipment Listing	Equipment Listing June 2011

SORBENTS

Name of Manufacturer	Model Number	Sorbent Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Complete Environmental Products	GES-B510	B	S	100		X		X	Port Arthur	Garner
Complete Environmental Products	GES-R144	ST	S	25		X		X	Port Arthur	Garner
Complete Environmental Products	GES-SW100	SW	S	50		X		X	Port Arthur	Garner
Crucial, Inc.	OS-15	OT	S	250		X		X	Deer Park	Garner
Complete Environmental Products	GES-P100	PAD	S	325		X		X	Deer Park	Garner
Complete Environmental Products	GES-P200	PAD	S	200		X		X	Deer Park	Garner
Complete Environmental Products	GES-EP100	PAD	S	500		X		X	Deer Park	Garner
Complete Environmental Products	GES-B510	B	S	120		X		X	Deer Park	Garner
Complete Environmental Products	GES-B810	B	S	114		X		X	Deer Park	Garner
Complete Environmental Products	GES-R144	ST	S	50		X		X	Deer Park	Garner
Complete Environmental Products	GES-SW100	SW	S	40		X		X	Deer Park	Garner

KOCH

KOCH RISK MANAGEMENT SERVICES

MICHELLE P. BUTTERFIELD
MANAGER, CONTRACT RISK

September 7, 2006

Ms. Bobbie Risner
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, TX 77536

Via Email: floughner@garner-es.com

Re: Amendment to Intermittent Services Agreement #9500691-A

Dear Ms. Risner:

Your company currently has in effect an Intermittent Services Agreement dated June 14, 1995, as amended, (herein, the "Agreement") with Flint Hills Resources, LP, Koch Nitrogen Company, Koch Pipeline Company, L.P., Koch Supply & Trading, LP. The purpose of this amendment letter is as discussed below:

We understand that your company also will be providing work/services for **Koch Fertilizer Canada, Ltd.**. Thus, we propose amending the term "Company", as that term is defined in the Agreement, to include all of the following companies:

Flint Hills Resources, LP, Koch Fertilizer Canada, Ltd., Koch Nitrogen Company, Koch Pipeline Company, L.P., Koch Supply & Trading, LP

Under this proposed amendment letter, any future work/services performed by your company for Company, will be done pursuant to the Agreement dated June 14, 1995, as amended. All other terms and conditions of the Agreement would remain in full force and effect.

A request has been forwarded to your insurance company to provide a current insurance certificate incorporating the modifications stated above.

If you agree with this amendment letter, please sign in the appropriate space below, and return this letter to Michelle P. Butterfield, Manager, Contract Risk, Koch Risk Management, P.O. Box 2256, Bldg. T5G, Wichita, Kansas 67201, or via fax at (316) 828-9726.

Sincerely,

Michelle P. Butterfield

Michelle P. Butterfield
Manager, Contract Risk

AGREED AND ACCEPTED:
Garner Environmental Services, Inc.

Federal ID No.: 76-0134613
By: Otis Chambers
Printed Name: Otis Chambers
Title: Executive Vice President
Date: September 7, 2006

KOCH

CONTRACTUAL RISK MANAGEMENT

BILL BURGIN
CRM Legal Assistant

October 12, 2005

Via Facsimile: 281-479-0283

Ms. Bobbie Risner
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, TX 77536

Re: Agreement #9500691-A

Dear Ms. Risner:

Your company currently has in effect an Agreement dated June 14, 1995 (as amended, if applicable) (herein, the "Agreement") with Flint Hills Resources, LP, Koch Materials Company, Koch Nitrogen Company, Koch Pipeline Company, L.P., Koch Supply & Trading, LP. The purpose of this letter is as discussed below:

In connection with the sale by Koch Materials Company ("KMC") of certain of its asphalt assets on May 31, 2005, KMC has been removed from and is no longer a party to this Agreement, effective June 1, 2005. For the avoidance of doubt the terms of this Agreement will continue to apply to any event or occurrence on before June 1, 2005.

Also, due to divestitures, any of the following companies also parties to the Agreement may be removed: Chemical Petroleum Exchange, Inc., K.C. Asphalt, L.L.C. d/b/a Koch Performance Asphalt Company, Koch Waterproofing Solutions, Inc., Materials Transportation Services, Inc., NK Asphalt Partners, d/b/a Koch Asphalt Solutions – Southwest.

Please note that, except for the change to the Agreement set forth above, the terms, covenants and conditions of the Agreement will remain in full force and effect.

If you have any questions, please call me at (316) 828-5675.

Sincerely,

Bill Burgin

Bill Burgin

4111 East 37th Street North • Wichita, Kansas 67220 • P.O. Box 2256 • Wichita, Kansas 67201
316/828-5675 • FAX 316/828-9063 or 316/828-9824

KOCH

CONTRACTUAL RISK MANAGEMENT

MICHELLE P. BUTTERFIELD
CRM Legal Assistant

August 31, 2005

Via Facsimile: 281-478-0296

Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, TX 77536

Re: Amendment to Intermittent Services Agreement #9500691-A

Dear Mr. Chambers:

Your company currently has in effect an Intermittent Services Agreement dated June 14, 1995, as amended (herein, the "Agreement") with Flint Hills Resources, LP, Koch Materials Company, Koch Nitrogen Company, Koch Pipeline Company, L.P.. The purpose of this amendment letter is as discussed below:

We understand that your company also will be providing work/services for Koch Supply & Trading, LP. Thus, we propose amending the term "Company", as that term is defined in the Agreement, to include all of the following companies:

Flint Hills Resources, LP, Koch Materials Company, Koch Nitrogen Company, Koch Pipeline Company, L.P., Koch Supply & Trading, LP

Under this proposed amendment letter, future work/services performed by your company for Company, will be done pursuant to the Agreement dated June 14, 1995, as amended. All other terms and conditions of the Agreement would remain in full force and effect.

A request has been forwarded to your insurance company to provide a current insurance certificate incorporating the modifications stated above.

If you agree with this amendment letter, please sign in the appropriate space below, and return this letter to Michelle P. Butterfield, Legal Assistant, Koch Risk Management, P.O. Box 2256, Bldg. T5G, Wichita, Kansas 67201, or via fax at (316) 828-9726.

Sincerely,

Michelle P. Butterfield

Michelle P. Butterfield
Legal Assistant

Enclosures

AGREED AND ACCEPTED:
Garner Environmental Services, Inc.

Federal ID No.: 76-0134603
By: Otis Chambers
Printed Name: OTIS CHAMBERS
Title: Executive Vice President
Date: 09/31/05

KOCH

June 28, 2005

VIA FACSIMILE: 281-478-0296

Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, TX 77536

Re: Partial Termination and Amendment of Agreement **9500691-A** for
Koch Hydrocarbon, LP and Koch Underground Storage Company

Dear Mr. Chambers:

As you know, your company currently has in effect an Agreement, dated **June 14, 1995** (as amended, if applicable) (hereinafter "Agreement"), with certain Koch companies, including Koch Hydrocarbon, LP and Koch Underground Storage Company (hereinafter "KHLP and KUSC"). On May 9, 2005, ONEOK, Inc. ("ONEOK") agreed to acquire KHLP and KUSC. The sale of KHLP and KUSC will be effective upon the closing of the transaction with ONEOK (the date of the closing referred to as, the "Effective Date"), currently scheduled for July 1, 2005.

The Agreement will not transfer with the sale of KHLP and KUSC. Accordingly, we hereby advise you that, effective on the Effective Date, KHLP and KUSC will no longer be parties to the Agreement and will be removed from the defined term "Company" in the Agreement. Additionally, effective on the Effective Date, the term "Company" in the Agreement will mean the following companies only:

Flint Hills Resources, LP, Koch Materials Company, Koch Nitrogen Company, Koch Pipeline Company, L.P.

Because KHLP and KUSC will no longer be parties to the Agreement, you may delete KHLP and KUSC as certificate holders on any future insurance certificates you provide under the Agreement. Please note that, except for the changes to the Agreement set forth above, the terms, covenants and conditions of the Agreement will remain in full force and effect.

Although KHLP and KUSC will no longer be parties to the Agreement after the Effective Date, KHLP and KUSC, under their new ownership, may want you to continue providing services to KHLP and KUSC or their successor entity. If so, we anticipate that after the Effective Date, KHLP and KUSC or ONEOK will forward a replacement service agreement to you for your review and acceptance, or you can contact ONEOK directly by calling Delaine Kurth at (918) 588-7833. To the extent you are currently providing services to KHLP and KUSC, you should continue to provide those services after the Effective Date until further notice from KHLP and KUSC or ONEOK.

We appreciate your cooperation during this ownership change, and should you have any questions please feel free to contact me at 316-828-7872.

Sincerely,

Michelle P. Butterfield

Michelle P. Butterfield
CRM Administrator

KOCH INDUSTRIES INC

LEGAL DEPARTMENT

LYNDA L. WENINGER
LEGAL ASSISTANT

May 9, 2003

VIA FACSIMILE: 281-478-0296
Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, Texas 77536

Re: Amendment to Intermittent Services Agreement 9500691-A
Flint Hills Resources, LP
Koch Hydrocarbon, LP,
Koch Nitrogen Company
Koch Underground Storage Company
Koch Fertilizer Storage and Terminal Company
Koch Materials Company
Koch Pipeline Company, L.P.

Dear Mr. Chambers:

Your company currently has in effect an Intermittent Services Agreement ("ISA") dated June 14, 1995, as amended April 25, 1997; December 19, 2001; and March 27, 2003, with the above referenced companies. The purpose of this letter is to amend Exhibit B-Insurance Requirements to add a new Paragraph 1.9, as further defined below:

Koch proposes to amend the ISA to add the following language to Exhibit B-Insurance Requirements as a new Paragraph 1.9:

1.9 Pollution Liability Insurance - Contractor shall provide and maintain, and ensure that all of Contractor's subcontractors provide and maintain, the following insurances: Contractor's Pollution Liability Insurance with coverage for (a.) bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death; (b.) property damage, including physical injury to or destruction of tangible property, including the resulting loss of use thereof, clean up costs, and the loss of use of tangible property that has not been physically injured or destroyed; (c.) defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; for losses caused by pollution conditions that arise from the operations of the Contractor performed under this Agreement. If such policy is written on a claims-made basis, the Contractor warrants that continuous coverage will be maintained, or an extended coverage period will be exercised for a period of 12 months, beginning from the time the work under this Agreement is completed. Contractor agrees to name Company as an additional insured and to furnish insurance certificates showing the Contractor's compliance with this Paragraph 1.9. Contractor also agrees to notify Company 30 days in

advance of any cancellation or change to the insurance coverages shown on the certificate. Contractor shall maintain limits no less than Pollution Legal Liability: **$1,000,000 per loss** and **$1,000,000 annual aggregate.**

$1m OC

Note: Coverage for Contractor's Pollution Liability Insurance can be satisfied by the addition of a time element buyback endorsement on the General Liability Policy. The coverage must be as broad as the coverage described above, with a minimum requirement for discovery of 7 days and a minimum reporting period of 60 days.

Contractor shall, before commencing work, provide Company with a certificate of insurance satisfactory to Company of the insurance coverages set forth above.

Under this proposed amendment letter, future work/services performed by your company for any of the above referenced Koch companies will be done pursuant to the ISA dated June 14, 1995, the amendments dated April 25, 1997; December 19, 2001; and March 27, 2003, and this amendment dated May 9, 2003.

If you agree with this amendment letter, please sign in the appropriate space below and return this letter to Lynda L. Weninger, Koch Industries, Inc., P.O. Box 2256, Wichita, Kansas 67201.

Sincerely,

Lynda L. Weninger
I.S.A. Legal Assistant

Enclosures

AGREED AND ACCEPTED:
Garner Environmental Services, Inc.

By: Otis Chambers
Printed Name: Otis Chambers
Title: Executive Vice President
Date: 5/21/03

Exhibit B
Insurance Requirements
Supplement to Intermittent Services Agreement 9500691-A

1.0 With respect to Contractor's performance of the agreement to which this exhibit is attached (referred to hereinafter as the "agreement"), Contractor shall maintain the following insurance:

1.1 **Worker's Compensation and Employers' Liability Insurance,** as prescribed by applicable law including insurance covering liability under the Longshoremen's and Harbor Workers' Compensation Act, the Merchant Marine Act of 1920 (Jones Act) and the Outer Continental Shelf Land Act, if applicable. Coverage will include an Alternate Employer Endorsement (WC 00 03 01) naming Company as an Alternate Employer. Contractor shall require its insurer or insurance agent to provide, as requested by Company, Contractor's Experience Modification Rating (EMR).

1.2 **Commercial General Liability Insurance,** which shall be at least as broad as the coverage provided by a standard form Commercial General Liability Policy ISO CG 00 01 02 96, with standard exclusions "a" through "n", or ISO CG 00 01 07 98 with standard exclusions "a" through "o", with a minimum combined single limit of **$3,000,000** per occurrence for bodily injury and property damage and a **$3,000,000** aggregate each for the general policy and the products/completed operations hazard. This insurance must include the following features:

1.2.1 If work to be performed by Contractor includes construction or demolition operations within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing, and if Contractor's commercial general liability insurance policy is form ISO CG 00 01 11 88, then such policy will include a Railroad's Contractual Liability Endorsement CG 24 17 10 93.

1.2.2 Contractual Liability coverage.

1.2.3 Products and Completed operations.

1.2.4 Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of the ground (XCU coverage), if applicable.

1.2.5 Coverage will include one of the following endorsements naming Company as an additional insured:

(i) Additional Insured - Owners, Lessees or Contractors (Form B) Endorsement (CG 20 10 10 93); or
(ii) Additional Insured - Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 03 97).

1.3 **Automobile Liability Insurance,** covering all owned, non owned, hired and leased vehicles with a minimum combined single limit for Bodily Injury and Property Damage of **$3,000,000** per accident. This insurance must include contractual liability coverage.

1.4 **Aircraft Liability Insurance** - If any operations require the use of aircraft, including helicopters, Contractor shall maintain or require owners of such aircraft to maintain Aircraft Liability Insurance with a combined single limit of not less than **$5,000,000** for bodily injury and property damage (including, passenger) liability.

1.5 **Hull and Machinery Insurance** covering vessels or barges owned or bareboat chartered by Contractor and used by Contractor in the performance of the agreement. Such vessels shall be insured for no less than the fair market value of such vessel or barge. Coverage shall include **Collision Liability Insurance** with limits no less than **$5,000,000.**

1.6 **Protection and Indemnity Insurance** - If marine work is to be performed under the agreement, Contractor shall maintain Protection and Indemnity Insurance, including coverage for injuries to or death of masters, mates and crews of vessels used in the performance of the agreement. The limits of liability of such insurance shall not be less than **$5,000,000** per occurrence. Contractor may cover its obligation for loss of life or bodily injury to the crew of the vessel by extension of the Workers Compensation Insurance 1.1 above (Jones Act). Coverage shall also include pollution liability for loss as specified in the requirements of applicable United States Federal and State Laws. All certificates evidencing financial responsibility shall be current and carried on board.

1.7 **Railroad Protective Liability** - If required by Company, Contractor shall maintain Railroad Protective Liability Insurance naming the railroad as the insured with a limit for bodily injury and property damage liability of **$2,000,000** per occurrence, **$6,000,000** aggregate. The original of said policy shall be furnished to railroad prior to any construction or entry upon the railroad easement premises by Contractor.

1.8 **Umbrella / Excess Insurance** - The limits specified in 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 above may be satisfied with a combination of primary and Umbrella/Excess Insurance.

1.9 **Pollution Liability Insurance** - Contractor shall provide and maintain, and ensure that all of Contractor's subcontractors provide and maintain, the following insurances: Contractor's Pollution Liability Insurance with coverage for (a.) bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death; (b.) property damage, including physical injury to or destruction of tangible property, including the resulting loss of use thereof, clean up costs, and the loss of use of tangible property that has not been physically injured or destroyed; (c.) defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; for losses caused by pollution conditions that arise from the operations of the Contractor performed under this Agreement. If such policy is written on a claims-made basis, the Contractor warrants that continuous coverage will be maintained, or an extended coverage period will be exercised for a period of 12 months, beginning from the time the work under this Agreement is completed. Contractor agrees to name Company as an additional insured and to furnish insurance certificates showing the Contractor's compliance with this Paragraph 1.9. Contractor also agrees to notify Company 30 days in advance of any cancellation or change to the insurance coverages shown on the certificate. Contractor shall maintain limits no less than Pollution Legal Liability: **$1,000,000 per loss and $1,000,000 annual aggregate**.

1mm OC

Note: Coverage for Contractor's Pollution Liability Insurance can be satisfied by the addition of a time element buyback endorsement on the General Liability Policy. The coverage must be as broad as the coverage described above, with a minimum requirement for discovery of 7 days and a minimum reporting period of 60 days. Contractor shall, before commencing work, provide Company with a certificate of insurance satisfactory to Company of the insurance coverages set forth above.

2.0 **Policy Endorsements**

2.1 The above insurance shall include a requirement that the insurer provide Company with thirty (30) days' written notice prior to the effective date of any cancellation or material change of the insurance.

2.2 The insurance specified in Section 1.2, 1.4, 1.5, 1.6 and 1.8 hereof shall:

i) Name Company as an additional insured with respect to work performed for Company, with such additional insured endorsement providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them); and

ii) Be primary to and not in excess of or contributory with any other insurance available to Company.

3.0 **Evidence of Insurance** - Contractor shall, before commencing work, provide Company with a certificate (see attached **Exhibit C**) satisfactory to Company of the insurance coverages and endorsements set forth in Sections 1.0 and 2.0 above. If requested by Company, Contractor shall provide Company with certified copies of all policies.

4.0 **Waiver of Subrogation**

4.1 Contractor, on behalf of its insurers, waives any right of subrogation that such insurers may have against Company arising out of this agreement.

4.2 The insurance specified in Section 1.1 hereof shall contain a waiver of the right of subrogation against Company and an assignment of statutory lien, if applicable.

4.3 Any physical damage insurance carried by Contractor on construction equipment, tools, temporary structures and supplies owned or used by Contractor shall provide a waiver of the right of subrogation against Company.

5.0 All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs, unless specifically consented to in writing by Company.

6.0 The obligation to carry the insurance required by this Exhibit shall not limit or modify in any way any other obligations assumed by the Contractor under the agreement. Contractor shall be held accountable for all insurance coverages, including those of sub-contractors. Company shall not be under any duty to advise Contractor in the event that Contractor's insurance is not in compliance with this agreement. ACCEPTANCE OF ANY INSURANCE CERTIFICATE SHALL NOT CONSTITUTE ACCEPTANCE OF THE ADEQUACY OF COVERAGE, COMPLIANCE WITH THE REQUIREMENTS OF THE AGREEMENT, OR AN AMENDMENT TO THE AGREEMENT.

KOCH INDUSTRIES INC

LEGAL DEPARTMENT

April 4, 2003

LYNDA L. WENINGER
LEGAL ASSISTANT

Via Facsimile: 281-478-0296

Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, Texas 77536

Re: Intermittent Services Agreement 9500691-A
Exhibit A – Rates

Dear Mr. Chambers:

Attached to the rate schedule is a "Field Service Terms and Conditions" (copy attached). The purpose of this letter is merely to clarify that Exhibit A – Rate Sheet is being provided to Koch for pricing purposes only, and that the page titled "Field Service Terms and Conditions" is not a part of the ISA and its other exhibits and attachments.

If this letter is an accurate statement of Garner Environmental Services, Inc's understanding, please indicate your acceptance by signing where indicated and return a copy to me as soon as possible. This letter will become a part of the ISA.

If you have any questions regarding this matter, please do not hesitate to call. Thank you.

Respectfully,

Lynda L. Weninger
I.S.A. Administrator/Legal Assistant

AGREED AND ACCEPTED
Garner Environmental Services, Inc.

Name: Otis Chambers, Ex V-P
Dated: 4/28/03

KOCH INDUSTRIES INC

LEGAL DEPARTMENT

March 27, 2003

LYNDA L. WENINGER
LEGAL ASSISTANT

VIA FACSIMILE: 281-478-0296

Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, Texas 77536

Re: Amendment to Intermittent Services Agreement 9500691-A
Flint Hills Resources, LP — Koch Fertilizer Storage and Terminal Company
Koch Hydrocarbon, LP — Koch Materials Company
Koch Pipeline Company, L.P.

Dear Mr. Chambers:

Your company currently has in effect an Intermittent Services Agreement ("ISA") dated June 14, 1995, as amended April 25, 1997; and December 19, 2001, with the above referenced companies. From time to time other affiliated companies may need your services. The purpose of this letter is to propose adding **Koch Nitrogen Company and Koch Underground Storage Company** to the ISA.

We propose amending the term "Company," as that term is used in the ISA dated June 14, 1995, to include all of the following companies:

Flint Hills Resources, LP — Koch Fertilizer Storage and Terminal Company
Koch Hydrocarbon, LP — Koch Materials Company
Koch Nitrogen Company — Koch Pipeline Company, L.P.
Koch Underground Storage Company

Under this proposed amendment letter, future work/services performed by Garner Environmental Services, Inc. for any of the above referenced companies will be done pursuant to the ISA dated June 14, 1995, the amendments dated April 25, 1997; December 19, 2001, and this amendment dated March 27, 2003.

4111 East 37th Street North • Wichita, Kansas 67220 • P.O. Box 2256 • Wichita, Kansas 67201
316/828-6587 • FAX 316/828-7664

An amendment letter amending the Exhibit C, certificate of insurance, has been forwarded to your insurance company. If this proposed amendment is acceptable, please contact your agent and authorize him to sign the amendment letter.

If you agree with this amendment letter, please sign in the appropriate space below and return this letter to Lynda L. Weninger, Koch Legal Services, Koch Industries, Inc., P.O. Box 2256, Bldg. T4F, Wichita, Kansas 67201.

Sincerely,

Lynda L. Weninger
ISA Legal Assistant

Enclosures

AGREED AND ACCEPTED:
Garner Environmental Services, Inc.

By: Otis Chambers
Printed Name: Otis Chambers
Title: Executive Vice President
Date: 4/28/03

KOCH INDUSTRIES, INC.

LEGAL DEPARTMENT

GEOFF D. BAKER
ISA Administrator

December 19, 2001

VIA FACSIMILE: 281-478-0296
Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, TX 77536

Re: Amendment to Intermittent Services Agreement 9500691-A
Koch Industries, Inc./affiliates/subsidiaries

Dear Mr. Chambers:

Garner Environmental Services, Inc. currently has in effect an Intermittent Services Agreement dated June 14, 1995 (as amended, if applicable) (the "ISA"), with the "Koch parties" to such ISA being listed as Koch Industries, Inc. and its various affiliates/subsidiaries. The purpose of this letter is to propose amending the ISA as detailed below.

Koch proposes that the term "Company," as used in the ISA, be amended to include the following listed entities (rather than Koch Industries, Inc. and its various affiliates and subsidiaries), effective with respect to work/services performed on or after January 1, 2002:

Diamond-Koch II, L.P.
Diamond-Koch III, L.P.
Koch Hydrocarbon, LP
Koch Materials Company
Koch Pipeline Company, L.P.
Koch Underground Storage Company
Koch Petroleum Group, L.P. (to be known as Flint Hills Resources, LP from and after January 1, 2002)

(Please note- If you are aware of your company performing services under the ISA for entities other than those listed above, please advise, and we will discuss modifying this letter accordingly. Also, the parties could add additional entities in the future via amendments, if so desired.)

In addition, Koch proposes adding certain clarification language to the ISA. For the convenience of the parties, the term "Company," as used in the ISA, includes multiple entities. Koch proposes adding the following language as a new last paragraph to the ISA, effective upon your company's execution of this letter amendment-

> "The parties recognize and acknowledge that 'Company,' as defined above, includes more than one entity. Contractor agrees that each such entity will be separately, not jointly, responsible for the obligations hereunder as relating to work performed for such entity."

If you agree with this amendment letter, please sign in the appropriate space below and return this letter to Geoff D. Baker, I.S.A. Administrator, Legal Department, Koch Industries, Inc., P.O. Box 2256, Bldg. T4F, Wichita, Kansas 67201, or via fax to (316) 828-7664.

Sincerely,

Geoff D. Baker

Geoff D. Baker
I.S.A. Administrator

Enclosure

AGREED AND ACCEPTED:
Garner Environmental Services, Inc.

By: Otis Chambers
Printed Name: Otis Chambers
Title: Executive Vice President
Date: 12/28/01

KOCH INDUSTRIES INC

July 12,2000

LEGAL DEPARTMENT

GEOFF D. BAKER
ISA ADMINISTRATOR

Via Facsimile: 281-478-0296
Mr. Otis Chambers
Garner Environmental Services, Inc.
1717 W. 13th St.
Deer Park, TX 77536

Re: Intermittent Services Agreement 9500691-A
Exhibit A – Rates

Dear Mr. Chambers:

We received an updated Rate Response Schedule for Intermittent Services Agreement 9500691-A dated June 14, 1995 (herein the "ISA"). Attached to the rate schedule there are Terms and Conditions included as part of the rate schedule. The purpose of this letter is merely to clarify that Exhibit A – Rate Sheet is being provided to Koch for pricing purposes only, and that Terms and Conditions do not become a part of the ISA and its other exhibits and attachments.

If this letter is an accurate statement of Garner Environmental Services, Inc. understanding, please indicate your acceptance by signing where indicated and return a copy to me as soon as possible. This letter will become a part of the ISA.

If you have any questions regarding this matter, please do not hesitate to call. Thank you.

Respectfully,

Geoff D Baker

Geoff Baker
I.S.A. Administrator

AGREED AND ACCEPTED
Garner Environmental Services, Inc.

Otis Chambers

Name:
Dated: 7-12-2000

KOCH INDUSTRIES INC

LEGAL DEPARTMENT

K. KELLY MITCHELL
LEGAL ASSISTANT

April 25, 1997

VIA FACSIMILE: 713-920-1359
Garner Environmental Services
Attn: C.J. Nadeau
314 Allen Genoa Road
Houston, TX 77017

Re: **Intermittent Services Agreement**
Koch Industries and/or All Affiliates

Dear Mr. Nadeau :

Your company has executed an Intermittent Services Agreement (ISA) dated June 14, 1995 with the above referenced Koch companies. The purpose of this letter is to propose adding certain language to the agreement that would enable your company to be an Oil Spill Response Organization for us.

By signing the appropriate space below and returning this letter to our office, you agree to amend the Intermittent Services Agreement to include the following conditions under the "Special Conditions" section of the ISA:

> *"Contractor represents and warrants that it is classified by the United States Coast Guard as a Class [insert the appropriate Class(es): A,B,C,D, and/or E]* _____ *Oil Spill Response Organization (OSRO) for [insert the appropriate environment(s), i.e. Great Lakes, inland, rivers and canals, or oceans]*_____ *environment(s) in the following geographic location(s): [insert precise description of geographic location in which OSRO classification applies]* _____ ***(SEE ATTACHED OSRO CLASSIFICATION LETTER)***_____.
>
> *Upon telephone notification from Company, Contractor shall respond to any spill or release of oil or hazardous substance with the personnel and equipment specified by Company. Company may identify Contractor as an Oil Spill Response Organization in any facility response plan developed pursuant to the Federal Oil Pollution Act of 1990, or any state counterpart thereto, for any facility located in the geographic location(s) identified above. Contractor shall respond hereunder at the request of Company whether or not Company has identified Contractor in the particular facility's response plan. Contractor shall notify Company of any change in Contractor's OSRO classification [e.g. suspension or revocation or changes in class level(s), operating environment(s), or geographic location(s)] as soon as possible, but in no event more than five (5) calendar days after the effective date of such change, suspension, or revocation."*

If you agree with this amendment, please sign in the appropriate space below and return this letter to: K. Kelly Mitchell, ISA Administrator/Legal Department, P. O. Box 2256, Wichita, KS 67201, or by fax at (316)828-7664.

COMPANY
KOCH INDUSTRIES, INC. AND/OR ALL AFFILIATES

AGREED TO AND ACCEPTED ON THIS _____ DAY OF _____, 1997.

By: _____

Printed Name: _____

Title: _____

CONTRACTOR
GARNER ENVIRONMENTAL SERVICES INC.

AGREED TO AND ACCEPTED ON THIS 25th DAY OF April, 1997.

By: _____

Printed Name: Nelson J. Fetgatter

Title: Vice-President

Very truly yours,

K. Kelly Mitchell
Legal Assistant/ISA Administrator

INTERMITTENT SERVICES AGREEMENT

Date: 14 June 1995

Contractor: GARNER ENVIRONMENTAL SERVICES

PARTIES

1. It is hereby agreed KOCH INDUSTRIES, INC. AND/OR ALL AFFILIATES (referred to as "Company") and GARNER ENVIRONMENTAL SERVICES (referred to as "Contractor"), whose business address is 314 Allen Genoa Road, Houston, Texas 77017 that Contractor will, as an independent contractor, furnish all necessary supervision, labor, materials and equipment (other than specified labor, materials and equipment furnished by Company) and shall perform work for Company as requested by Company from time to time during the term of this agreement in conformity with the terms of this agreement.

SPECIAL CONDITIONS:

_____

_____

_____

Contractor shall be compensated in accordance with the attached rates marked as Exhibit "A". The rates shall include without limitation, all applicable taxes imposed by federal, state or other governments or bodies having jurisdiction.

BILLING AND PAYMENT

2. Contractor shall submit to Company's authorized representatives an itemized statement detailing charges for labor and equipment including hours, dates, the hourly charge for the labor or equipment and any charge for materials at the end of each thirty-days (name desired billing period - e.g., week, month or thirty days) during which work is performed. Contractor shall furnish upon demand any records relating to the statement prior to or after payment by Company.

3. Payment shall be made within thirty (30) days of receipt of Company of the statement described in paragraph 2 of this agreement. Company reserves the right to withhold payment until completion of the work and its acceptance by Company or until Contractor furnishes proof satisfactory to Company that all bills for materials and labor covering the work have been fully paid by Contractor, and that the premises upon which the work is done and any structures built, improved or added to are not subject to any material or labor liens or claims of liens. Final payment shall be made within thirty (30) days of the date of acceptance of the work by Company Contractor and/or any subcontractor shall promptly and satisfactorily settle all liens and claims for labor performed and supplies or material furnished in connection with the work; and in the event Contractor fails or refuses to promptly and satisfactorily settle any such liens or claims, Company shall, after notifying Contractor in writing, have the right to settle such claims for the account of Contractor and deduct the amount thereof from amounts payable to Contractor. Payments made under this agreement shall not constitute full or partial acceptance of the work or any part of the work by Company.

PERFORMANCE OF WORK

4. Contractor shall rely solely upon Contractor's own examination and investigation of the surface and subsurface conditions at the site, and all local and general conditions which may affect performance of the work.

5. Unless otherwise specified, Contractor shall secure all permits and licenses necessary to the performance of the work, shall pay all fees and make all deposits pertaining thereto, and shall at Contractor's expense furnish all bonds required to perform the work, and shall submit proof thereof to Company.

6. Contractor shall perform the work:

a. In a workmanlike manner using qualified, efficient and careful workers;
b. In accord with all plans, drawings and specifications;
c. In compliance with all applicable federal, state, local and Company's safety rules and regulations;
d. In a manner to protect the work, the environment, Company's property and the property and persons of others from loss, damage or injury of any type;
e. So as not to interfere with the operations of others on the premises; and,
f. Under the supervision of an employee of Contractor.

An employee supplied by Contractor without supervision by Contractor and who is under the exclusive direction and control of Company shall be considered a borrowed servant. In all other cases the employee shall be considered an employee of Contractor as an independent contractor. Contractor's duties to defend, indemnify, protect and hold harmless Company under Paragraph 12 of this agreement shall continue regardless of the characterization of an employee as a borrowed servant or the employee of an independent contractor.

7. Company may maintain such representatives as it deems necessary on the work site for the purpose of inspecting, testing and insuring the satisfactory completion of the work. Company may inspect the work at any time during the progress of the work, and Contractor shall provide reasonable facilities for such inspection. If any applicable statute, regulation or order requires any part of the work to be specially tested or approved, Contractor shall give Company reasonable notice of the time and place of such testing and inspection. Company may require Contractor to correct defective work or Company may have the work corrected by others, and, in either event, Contractor shall bear the cost of such correction.

8. Unless otherwise specified, all materials shall be new and workmanship shall be of good quality. No substitutions of materials from that specified in the plans and specifications in this agreement shall be permitted unless approval is given by Company in writing.

9. Contractor guarantees the work to be performed hereunder against defects in workmanship and material which shall appear within one year following final acceptance of the work by Company, and Contractor shall promptly remedy all such defects. Contractor shall arrange for the extensions, to Company, of all additional warranties by suppliers of goods or services which are consistent with or extend or expand the terms of the above-described warranty of Contractor.

10. Contractor and its employees, agents and subcontractors shall comply with all applicable laws, regulations, ordinances and other rules of federal, state and local government and political subdivisions, and of any other duly constituted authority having jurisdiction.

11. Contractor shall be responsible for, and hereby assumes all liability whether insured or self-insured, for loss or destruction of or physical damage to the following:

a. All tools, machinery, equipment and appliances which are owned by Contractor or loaned or leased by Contractor by others than Company and which are not to be incorporated into the completed work; and,

b. All personal property of Contractor's employees; whether or not such loss, destruction or damage is caused by, arises out of, or is in any way connected with the negligence of Company, its employees or agents.

INDEMNITY AND INSURANCE

12. Contractor shall defend, protect, indemnify and save Company, Koch Industries, Inc. and any company of which Koch Industries, Inc. owns or controls fifty percent or more of the shares entitled to vote at a general election of directors (collectively referred to for purposes of this Paragraph 12 as "Company") harmless from and against all claims, demands, lawsuits, causes of action, strict liability claims, penalties, fines, administrative law actions and orders, expenses (including but not limited to attorney's fees) and costs of every kind and character arising out of or in any way incident to any of the work performed by Contractor, its subcontractors or the employees of either, on account of personal injuries, death, damage to property, damage to the environment, or infringement of any patent, regardless of whether such harm is to Contractor, Company, the employees or officers of either or any other person or entity. The duty to defend, protect, indemnify and save Company harmless referred to in the preceding sentence shall include, but not be limited to, claims, demands, lawsuits, strict liability claims, penalties, fines, administrative law actions and orders, costs, expenses and causes of action which result from the comparative, concurrent or contributing negligence of any person or entity including, but not limited to, Company, its agents, employees or officers, except Contractor shall not be liable for loss or damage resulting from the sole (100%) negligence of Company. Contractor further agrees to pay Company for damages to Company's property and to indemnify, defend and hold it harmless against the payment of any and all taxes, penalties, fines, interest, liens or indebtedness or claims against Company's property or for work performed, or measured by the work performed, growing out of or incident to Contractor's operations under this contract including, but not limited to taxes, penalties, fines, interest, liens or encumbrances which result from the concurrent or contributing negligence of any person or entity, which may include Company, its agents, employees or officers.

13. Contractor shall maintain at its own cost and expense such insurance of a type and in the amounts as required by Company to insure Contractor's indemnification and other obligations under this agreement and which will protect Company from all claims for damages to persons and to property which may arise from any operations under this contract or any subcontracts related to this contract. Contractor shall maintain during the entire term of this Contract insurance policies within minimum limits of coverage all as set forth on Exhibit B which is made a part hereof by reference. Prior to commencing work Contractor shall require its insurer or insurance agent to supply Company a certificate of insurance in the form as set forth on Exhibit C. Such insurance shall name Company as an additional insured in accordance with the requirements of Exhibit B.

GENERAL PROVISIONS

14. This agreement may not be assigned in whole or in part by Contractor without the prior written consent of Company, nor shall work under the contract be assigned to a subcontractor without the prior written consent of Company.

15. No amendment to this agreement shall be valid unless made in writing and signed by authorized representatives of both parties.

16. Company's right to require strict performance of Contractor's obligations shall not be affected in any way by prior waiver, forbearance or other course of dealing.

17. This agreement comprises the entire agreement between Company and Contractor, and there are no agreements, understandings, conditions, or representations, oral or written, expressed or implied, which are not merged into this agreement or superseded by it.

18. If Contractor should be adjudged as bankrupt, or it should make a general assignment for the benefit of creditors, or if a receiver should be appointed for Contractor, or it should refuse or fail to supply competent supervision or enough properly skilled people or proper material or disregard laws, rules or regulations applicable to the work, or otherwise violate any provision of this agreement, then Company shall have the right to treat such as a breach of this agreement and may upon the giving of written notice terminate this agreement, terminate employment of Contractor, and take possession of the premises, all materials, tools, equipment, supplies, and appliances of any type and finish the work by whatever method it may deem appropriate.

19. Company may require Contractor to furnish a surety bond in the full amount of and guaranteeing faithful performance of this agreement. Such bond shall be written on a form prescribed or approved by Company and shall be purchased from a source approved by Company.

20. Company shall have the right, at any reasonable time and from time to time, to audit any and all records, documents and other data pertaining to this agreement. Contractor shall cooperate in furnishing to Company all such records, documents and other data in connection with any such audit.

21. Company does not guaranty an offer of work to Contractor during the term of this agreement. Company and Contractor agree, however, that any work offered by Company to Contractor and accepted by Contractor during the term of this agreement will be performed under the terms of this agreement. Company shall not be liable in damages or otherwise, if by reason of an act of God or public enemy, strike, lockout, boycott, picketing, riot, insurrection, fire, or any governmental order, rule, or regulation, or any ordinance it shall be delayed in, or prevented from, furnishing any materials, equipment, facilities, services, etc., required to be furnished by it hereunder.

22. Contractor shall comply with and be subject to the most recent Substance Abuse Policy issued by Koch Industries, Inc. All employees of Contractor shall be subject to drug testing when on the premises of Company. In addition to the foregoing requirements, should Contractor perform services related to facilities regulated by the United States Department of Transportation, Contractor shall have developed and implemented, or have contracted with an organization that has developed and implemented, substance abuse policies in compliance with 41 U.S.C. 701, et seq., 49 C.F.R. Part 199 and 49 C.F.R. Part 40, if applicable; and, with respect to equal employment opportunity and affirmative action compliance, Contractor shall comply with the provisions of Section 202 of Executive Order 11246 and the rules and regulations issued pursuant to Section 201 thereof. Contractor shall provide Company with documentation demonstrating compliance with such laws upon the request of Company.

23. Contractor warrants and represents that all of Contractor's employees have received all safety training required by law for employees working in an environment in which they may come in contact with crude oil, natural gas, natural gas liquids, refined products or hazardous materials. Contractor agrees to permit Company to inspect Contractor's records in order to assure compliance with this Paragraph 23.

TERM

24. This agreement shall be effective as of the date above written and shall continue for a one year period following that date. At the end of the initial one year period the agreement shall continue until replaced by a subsequent agreement or otherwise revoked by written notice by either party.

So agreed on the date below written.

COMPANY: KOCH INDUSTRIES, INC. AND/OR ALL AFFILIATES

By _____

Title Vice President

Date 6-21-95

COMPANY'S WITNESS

By _____

Date 6/26/95

CONTRACTOR: GARNER ENVIRONMENTAL SERVICES

By _____

Title Vice-President

Date 14 June 1995

CONTRACTOR'S WITNESS

By _____

Date 14 June 1995

6/20/95

rev. 5/95

P8-4640

Exhibit B
Insurance Requirements
Supplement to Intermittent Services Agreement

1.0 With respect to Contractor's performance of the agreement to which this exhibit is attached (referred to hereinafter as agreement), Contractor shall maintain the following insurance:

1.1 **Worker's Compensation and Employers' Liability Insurance,** as prescribed by applicable law including insurance covering liability under the Longshoremen's and Harbor Workers' Compensation Act, the Merchant Marine Act of 1920 (Jones Act) and the Outer Continental Shelf Land Act, if applicable. Coverage will include an Alternate Employer Endorsement (WC 00 03 01) naming Company as alternate employer.

1.2 **Commercial General Liability Insurance,** which shall be no less comprehensive and no more restrictive than the coverage provided by a standard form Commercial General Liability Policy (ISO CG 00 01 11 85 or CG 00 01 11 88) with standard exclusions "a" through "n", with a minimum combined single limit of $3,000,000 per occurrence for Bodily injury and Property Damage and a $3,000,000 aggregate each for the general policy and the Products/Completed Operations hazard. This insurance must include the following features:

1.2.1 If work to be performed by Contractor is on or near any railroad property, Coverage for such operations naming Railroad as an additional insured, unless coverage is provided under Railroad Protective Liability insurance - Section 1.7.

1.2.2 Contractual Liability, insuring the liabilities assumed under the Indemnity and Insurance Section of the agreement, inclusive of XCU exposure (1.2.4 below) if applicable, but excluding coverage for taxes and patent infringement.

1.2.3 Products and Completed operations.

1.2.4 Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of the ground.

1.2.5 Coverage will include Additional Insured - Owners, Lessees or Contractors (Form B) Endorsement (CG 20 10 10 93) naming Company as an additional insured.

1.3 **Automobile Liability Insurance,** covering all owned, non owned and hired vehicles with a minimum combined single limit for Bodily Injury and Property Damage of $3,000,000 per accident. This insurance will include contractual liability insuring the indemnification provisions contained in this contract but excluding coverage for taxes.

1.4 **Aircraft Liability Insurance** - If any operations require the use of aircraft, including helicopters, Contractor shall maintain or require owners of such aircraft to maintain Aircraft Liability Insurance with a combined single limit of not less than $10,000,000 for bodily injury and property damage (including, passenger) liability.

1.5 **Hull and Machinery Insurance** covering vessels or barges owned or bareboat chartered by Contractor and used by contractor in the performance of the agreement. Such vessels shall be insured for no less than the fair market value of such vessel or barge. Coverage shall include **Collision Liability Insurance** with limits no less than $5,000,000.

1.6 **Protection and Indemnity Insurance** - If marine work is to be performed under the agreement, Protection and Indemnity Insurance, including coverage for injuries to or death of masters, mates and crews of vessels used in the performance of the agreement. The limits of liability of such insurance shall not be less than five million dollars ($5,000,000) per occurrence. Contractor may cover its obligation for loss of life or bodily injury to the crew of the vessel by extension of the Workers Compensation Insurance 1.1 above. Coverage shall also include pollution liability for loss as specified in the requirements of applicable United States Federal and State Laws. All certificates evidencing financial responsibility shall be current and carried on board.

1.7 **Railroad Protective Liability** - If work is to be performed on or near any railroad property, and protection is not afforded under 1.2.1 above, Railroad Protective Liability Insurance naming the railroad as the insured with a limit for bodily injury and property damage liability of $2,000,000.00 per occurrence, $6,000,000.00 aggregate. The original of said policy shall be furnished to railroad prior to any construction or entry upon the easement premises by Contractor.

1.8 The limits specified in 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 above may be satisfied with a combination of primary and Umbrella/Excess Insurance.

2.0 **Policy Endorsements**

2.1 The above insurance shall include a requirement that the insurer provide Company with thirty (30) days' written notice prior to the effective date of any cancellation or material change of the insurance.

2.2 The insurance specified in Section 1.2, 1.4, 1.5, and 1.6 hereof shall name Company as an additional insured with respect to operations performed under the agreement and shall be primary to and not in excess of or contributory with any other insurance available to Company.

3.0 **Evidence of insurance** ctor shall, before commencing work, p ompany with a certificate (see attached **Exhibit C**) satisfactory to Company of the insurance coverag and endorsements set forth in Sections 1.0 and 2.0 above. If requested by Company, Contractor shall provide Company with certified copies of all policies.

4.0 **Waiver of Subrogation**

4.1 Contractor, on behalf of its insurers, waives any right of subrogation that such insurers may have against Company arising out of this agreement.

4.2 The insurance specified in Section 1.1 hereof shall contain a waiver of the right of subrogation against the Company and an assignment of statutory lien, if applicable.

4.3 Any physical damage insurance carried by Contractor on construction equipment, tools, temporary structures and supplies owned or used by Contractor shall provide a waiver of the right of subrogation against the Company.

5.0 If the Work is performed on a footage, lump-sum or maximum cost basis, the cost of the above insurance shall be borne by Contractor.

6.0 If work is performed on a cost plus fee basis or for change order work Company will reimburse Contractor for the cost of such insurance up to the minimum limits prescribed in Section 1.0 above. Reimbursement of insurance costs under a cost plus fee contract and change order will be determined as follows:

6.1 Worker's Compensation Manual rates applied to field labor subject to Contractor's Experience Modification (not to exceed 1.00) applicable for entire contract period as identified in proposal and further subject to the premium discount schedule applicable in the state where the Work is to be performed.

6.2 Commercial General Liability rates To Be Identified in Contractor's Proposal applied to field labor only.

6.3 Automobile Liability Insurance borne by Contractor.

6.4 Aircraft Liability Insurance borne by Contractor.

6.5 Hull and Machinery Insurance borne by Contractor.

6.6 Protection and Indemnity Insurance borne by Contractor.

6.7 Railroad Protective Liability Insurance borne by Contractor.

7.0 The obligation to carry the insurance required by this Exhibit shall not limit or modify in any way any other obligations assumed by the Contractor under the agreement. Contractor shall be held accountable for all insurance coverages, including those of sub-contractors. Company shall not be under any duty to advise Contractor in the event that Contractor's insurance is not in compliance with this agreement.

KOCH

CONTRACTUAL RISK MANAGEMENT

BILL BURGIN
CRM Legal Assistant

August 24, 2005

Via Facsimile: 361-289-6363

Mr. Mackey Ward
Miller Environmental Services, Inc.
600 Flato Road
Corpus Christi, TX 78405

Re: Agreement #9700335-A

Dear Mr. Ward:

Your company currently has in effect an Agreement dated April 24, 1997 (as amended, if applicable) (herein, the "Agreement") with Flint Hills Resources, LP, Koch Energy, Inc., Koch Pipeline Company, L.P., and Reiss Remediation, Inc. The purpose of this letter is as discussed below:

Due to an internal merger, Reiss Remediation, Inc. is now Reiss Remediation, LLC.

Please note that, except for the change to the Agreement set forth above, the terms, covenants and conditions of the Agreement will remain in full force and effect.

A request has been forwarded to your insurance company to provide a current insurance certificate incorporating the modification stated above.

If you have any questions, please give me a call at (316) 828-5675.

Sincerely,

Bill Burgin

4111 East 37th Street North • Wichita, Kansas 67220 • P.O. Box 2256 • Wichita, Kansas 67201
316/828-5675 • FAX 316/828-9063 or 316/828-9624

SECOND REQUEST
10-28-04

KOCH

KOCH RISK MANAGEMENT SERVICES

MICHELLE R. BUTTERFIELD
LEGAL ASSISTANT

October 22, 2004

VIA FACSIMILE: 361-289-6363

Mr. Mackey Ward
Miller Environmental Services, Inc.
600 Flato Road
Corpus Christi, Texas 78405

Re: Amendment to Intermittent Services Agreement 9700335-A
Flint Hills Resources, LP
Koch Pipeline Company, L.P.
Koch Energy, Inc.
Reiss Remediation, Inc.

Dear Mr. Ward:

Miller Environmental Services, Inc. ("Contractor") currently has in effect an Intermittent Services Agreement ("ISA") dated April 24, 1997, as amended December 1, 1999; January 1, 2001; January 15, 2001, with the above referenced Koch company(s). The purpose of this amendment is to amend the ISA to add two new paragraphs, as further defined below:

Koch proposes amending the ISA to add the following language to the end of the main body of the ISA as a new Paragraph 26:

26. CONFIDENTIALITY. All information that Contractor acquires from Company hereunder, directly or indirectly, and all information that arises out of the Work performed hereunder, concerning such Work and/or proprietary processes involved in the Work, including without limitation, information concerning Company's current and future business plans, information relating to Company's operations, and other Company-furnished information and know-how relating to the Work shall be deemed Company's "Proprietary Information." Company's Proprietary Information shall be held in strictest confidence by Contractor and shall be used solely for purposes of performing such Services. The obligations under this Paragraph shall survive completion of such work/services and termination of this Agreement.

In addition, Koch proposes adding certain clarification language to the ISA. For the convenience of the parties, and in order to reduce the necessity of having multiple agreements, the term "Company," as used in the ISA, currently includes multiple entities.

Koch proposes amending the ISA to add the following language to the end of the main body of the ISA as a new Paragraph 27, effective upon your company's execution of this letter amendment:

4111 East 37th Street North • Wichita, Kansas 67220 • P.O. Box 2256 • Wichita, Kansas 67201-2256
316/828-7872 • FAX 316/828-7664 • [illegible]

If you agree with this amendment letter, please sign in the appropriate space below and return this letter to Lynda L. Weninger, I.S.A. Administrator, Legal Department, Koch Industries, Inc., P.O. Box 2256, Bldg. TID, Wichita, Kansas 67201.

Sincerely,

Lynda L. Weninger
I.S.A. Administrator/Legal Assistant

Enclosures

AGREED AND ACCEPTED:
Miller Environmental Services, Inc.

By: [signature]
Printed Name: MARKEY WARD
Title: OPERATIONS MANAGER
Date: 2/6/01

INTERMITTENT SERVICES AGREEMENT 9700335G-A

This Intermittent Services Agreement ("Agreement") is entered into this 1st day of January 2001, but effective as of the date specified below, by and between:

(i.) **Miller Environmental Services, Inc.** ("Contractor"); and

(ii.) **Koch Gateway Pipeline Company** (as of the Effective Date specified below, Koch Gateway Pipeline Company will be known as **Gulf South Pipeline Company, LP**) ("Company").

WHEREAS, attached hereto as Exhibit "1" is a copy of the Intermittent Services Agreement 9700335G-A dated April 24, 1997, as amended, by and between Contractor, Company, and the other parties listed therein (such agreement, including all amendments and exhibits thereto, shall be referred to as the "Original Intermittent Services Agreement") ;

AND, WHEREAS, Contractor and Company desire to enter into a new Intermittent Services Agreement that contains the same substantive terms and conditions as the Original Intermittent Services Agreement, but that is between only Contractor and Company.

NOW, THEREFORE, Contractor and Company state and agree as follows:

1. The terms and conditions contained in the Original Intermittent Services Agreement, a copy of which is attached hereto as Exhibit 1, are hereby made a part of this Agreement, the same as if such terms and conditions were fully set forth herein; provided, however, that: (i.) the term "Company," as used in such terms and conditions for purposes of this Agreement, shall mean only Koch Gateway Pipeline Company and Gulf South Pipeline Company, LP; and (ii.) the business and notice address for Company, for purposes of this Agreement, shall be 20 Greenway Plaza, Houston, Texas 77046.

The effect of the execution of this Agreement by the parties is that, from and after the Effective Date as defined below, an Intermittent Services Agreement will be in place between Contractor and Company that contains the same terms and conditions as the Original Intermittent Services Agreement, except as expressly modified herein.

2. The effective date ("Effective Date") of this Agreement shall be the date on which Koch Energy, Inc. contributes Company into Entergy-Koch, L.P. (the parent company of Company); Company will notify Contractor when such contribution occurs. In the event that Company determines that such contribution will not occur, Company shall notify Contractor of such non-occurrence, and this Agreement shall never become effective and shall be of no force or effect. Until the Effective Date, Company will continue to be a party to the Original Intermittent Services Agreement. From and after the Effective Date, the parties agree that Company will no longer be a party to the Original Intermittent Services Agreement with respect to work or services performed after the Effective Date.

3. The parties recognize and acknowledge that the execution of this Agreement does not affect in any manner the Original Intermittent Services Agreement, except as relating to Koch Gateway Pipeline Company/Gulf South Pipeline Company, LP. From and after the Effective Date, Contractor will have two Intermittent Services Agreements, one with Company as defined above and one with the "Koch entities" (other than Company as defined above) listed in the Original Intermittent Services Agreement.

EXECUTED BY THE PARTIES ON THE DATES INDICATED BELOW, BUT EFFECTIVE FOR ALL PURPOSES AS OF THE EFFECTIVE DATE AS DEFINED ABOVE:

"COMPANY"
Koch Gateway Pipeline Company/
Gulf South Pipeline Company, LP

By: _____
Printed Name: _____
Title: _____
Date: _____

"CONTRACTOR"
Miller Environmental Services, Inc.

By: John Perabo
Printed Name: JOHN PERABO
Title: RESPONSE COORDINATOR
Date: 22 JANUARY 2001

KOCH INDUSTRIES INC

LEGAL DEPARTMENT

CHARLES D. DUDLEY

December 1, 1999

Via Facsimile: 512-289-6363

Mr. Matt Dartez
Miller Environmental Services, Inc.
600 Flato Road
Corpus Christi, TX 78405

Re: Intermittent Services Agreement

Koch Energy Services Company (now known as Koch Energy, Inc.)
Koch Oil Company (now known as Koch Petroleum Group, L.P.)
Koch Refining Company, L.P. (now known as Koch Petroleum Group, L.P.)
Koch Gateway Pipeline Company
Koch Pipeline Company, L.P.

Dear Mr. Dartez:

Your company currently has in effect an Intermittent Services Agreement (herein, the "ISA") dated April 24, 1997 with the above referenced Koch companies. From time to time other affiliated Koch companies may need your services. The purpose of this letter is to propose amending the term "Company" as that term is used in the ISA, to include **Koch Operating Services Company** and **Koch Gateway Pipeline, L.P.**

Please note that Koch Oil Company and Koch Refining Company, L.P., through a consolidation and a name change, are now Koch Petroleum Group, L.P. Koch Energy Services Company through a merger is now known as Koch Energy, Inc.

Koch proposes amending the ISA to include all of the following Koch companies within the term "Company" effective as of the date of this letter.

Koch Energy, Inc.
Koch Gateway Pipeline Company
Koch Petroleum Group, L.P.
Koch Pipeline Company, L.P.
Koch Operating Services Company
Koch Gateway Pipeline, L.P.

Under this proposed amendment letter, future work/services performed by your company for any of the above referenced Koch companies will be done pursuant to the ISA dated April 24, 1997 and this amendment dated December 1, 1999.

By signing at the appropriate space below and returning this letter to our office, you agree to amend the ISA to include the above Koch companies within the term "Company" as used in the ISA.

4111 East 37th Street North • Wichita, Kansas 67220 • P.O. Box 2256 • Wichita, Kansas 67201
316/828-4707 • FAX 316/529-7727

A copy of the Exhibit C (Certificate of Insurance) reflecting this amendment has been forwarded to your insurance agency. Please ask your agent to complete the Exhibit C to evidence your current insurance coverage and the required endorsements. Under the ISA, Koch requires the above companies to be named additional insured (form CG 20 10 10 93 or CG 20 10 03 97) under the general liability and any applicable umbrella/excess liability policy. Under the workers compensation policy, Koch requires two endorsements, the alternate employer and waiver of subrogation.

If you agree with this amendment letter, please sign in the appropriate space below and return this letter to Charles D. Dudley, I.S.A. Administrator, Koch Industries, Inc., P.O. Box 2256, Bldg. T3D, Wichita, Kansas 67201, or fax it to me at (316)828-9063.

Very truly yours,

Charles D. Dudley
I.S.A. Administrator

AGREED AND ACCEPTED:
Miller Environmental Services, Inc.

By: Matt Darby
Printed Name: MATT DARBY
Title: RESPONSIBLE COORDINATOR
Date: 12/1/99

INTERMITTENT SERVICES AGREEMENT

Date: April 24, 1997
Agreement Number: 97-00335-A01

Contractor: Miller Environmental Services, Inc.

PARTIES

1. It is hereby agreed between **Koch Energy Services Company; Koch Gateway Pipeline Company; Koch Oil Company; Koch Pipeline Company, L.P.; Koch Refining Company, L.P.** (such companies being collectively referred to hereinafter as "Company") and **Miller Environmental Services, Inc.** (such company being referred to hereinafter as "Contractor"), whose business address is **600 Flato Road, Corpus Christi, TX 78405,** that Contractor will, as an independent contractor, furnish all necessary supervision, labor, materials and equipment (other than specified labor, materials and equipment furnished by Company) and shall perform work for Company as requested by Company from time to time during the term of this agreement in conformity with the terms of this agreement.

SPECIAL CONDITIONS (if applicable):

Contractor represents and warrants that it is classified by the United States Coast Guard as a Class **[insert the appropriate Class(es): A,B,C,D, and/or E]** _____ Oil Spill Response Organization (OSRO) for **[insert the appropriate environment(s), i.e. Great Lakes, inland, rivers and canals, or oceans]** _____ environment(s) in the following geographic location(s): **[insert precise description of geographic location in which OSRO classification applies]** _____

* See Attached OSRO Document

Upon telephone notification from Company, Contractor shall respond to any spill or release of oil or hazardous substance with the personnel and equipment specified by Company. Company may identify Contractor as an Oil Spill Response Organization in any facility response plan developed pursuant to the Federal Oil Pollution Act of 1990, or any state counterpart thereto, for any facility located in the geographic location(s) identified above. Contractor shall respond hereunder at the request of Company whether or not Company has identified Contractor in the particular facility's response plan. Contractor shall notify Company of any change in Contractor's OSRO classification [e.g. suspension or revocation or changes in class level(s), operating environment(s), or geographic location(s)] as soon as possible, but in no event more than five (5) calendar days after the effective date of such change, suspension, or revocation.

Contractor shall be compensated in accordance with the attached rates marked as Exhibit "A". The rates shall include without limitation, all applicable taxes imposed by federal, state or other governments or bodies having jurisdiction.

Contractor shall be compensated in accordance with the attached rates marked as Exhibit "A". The rates shall include without limitation, all applicable taxes imposed by federal, state or other governments or bodies having jurisdiction.

BILLING AND PAYMENT

2. Contractor shall submit to Company's authorized representatives an itemized statement detailing charges for labor and equipment including hours, dates, the hourly charge for the labor or equipment and any charge for materials at the end of each month during which work is performed. Contractor shall furnish upon demand any records relating to the statement prior to or after payment by Company.

3. Payment shall be made within thirty (30) days of Company's receipt of the statement described in Paragraph 2 of this agreement. Company reserves the right to withhold payment until completion of the work and its acceptance by Company or until Contractor furnishes proof satisfactory to Company that all bills for materials and labor covering the work have been fully paid by Contractor, and that the premises upon which the work is done and any structures built, improved or added to are not subject to any material or labor liens or claims of liens. Final payment shall be made within thirty (30) days of the date of acceptance of the work by Company. Contractor and/or any subcontractor shall promptly and satisfactorily settle all liens and claims for labor performed and supplies or material furnished in connection with the work; and in the event Contractor fails or refuses to promptly and satisfactorily settle any such liens or claims, Company shall, after notifying Contractor in writing, have the right to settle such claims for the account of Contractor and deduct the amount thereof from amounts payable to Contractor. Payments made under this agreement shall not constitute full or partial acceptance of the work or any part of the work by Company.

PERFORMANCE OF WORK

4. Contractor shall rely solely upon Contractor's own examination and investigation of the surface and subsurface conditions at the site, and all local and general conditions that may affect performance of the work.

5. Unless otherwise specified, Contractor shall secure all permits and licenses necessary to the performance of the work, shall pay all fees and make all deposits pertaining thereto, and shall at Contractor's expense furnish all bonds required to perform the work, and shall submit proof thereof to Company.

6. Contractor shall perform the work:

a. In a workmanlike manner using qualified, efficient and careful workers;
b. In accord with all plans, drawings and specifications;
c. In compliance with all applicable federal, state, local and Company's safety rules and regulations;
d. In a manner to protect the work, the environment, Company's property and the property and persons of others from loss, damage or injury of any type;
e. So as not to interfere with the operations of others on the premises; and,
f. Under the supervision of an employee of Contractor.

An employee supplied by Contractor without supervision by Contractor and who is under the exclusive direction and control of Company shall be considered a borrowed servant. In all other cases, the employee shall be considered an employee of Contractor as an independent contractor. Contractor's duties to defend, indemnify, protect and hold harmless Company under Paragraph 12 of this agreement shall continue regardless of the characterization of an employee as a borrowed servant or the employee of an independent contractor.

7. Company may maintain such representatives as it deems necessary on the work site for the purpose of inspecting, testing and ensuring the satisfactory completion of the work. Company may inspect the work at any time during the progress of the work, and Contractor shall provide reasonable facilities for such inspection. If any applicable statute, regulation or order requires any part of the work to be specially tested or approved, Contractor shall give Company reasonable notice of the time and place of such testing and inspection. Company may require Contractor to correct defective work or Company may have the work corrected by others, and, in either event, Contractor shall bear the cost of such correction.

8. Unless otherwise specified, all materials shall be new and workmanship shall be of good quality. No substitutions of materials from that specified in the plans and specifications in this agreement shall be permitted unless approval is given by Company in writing.

9. Contractor guarantees the work to be performed hereunder against defects in workmanship and material that shall appear within one year following final acceptance of the work by Company, and Contractor shall promptly remedy all such defects. Contractor shall arrange for the extensions, to Company, of all additional warranties by suppliers of goods or services that are consistent with or extend or expand the terms of the above-described warranty of Contractor.

10. Contractor and its employees, agents and subcontractors shall comply with all applicable laws, regulations, ordinances and other rules of federal, state and local government and political subdivisions, and of any other duly constituted authority having jurisdiction.

11. Contractor shall be responsible for, and hereby assumes all liability, whether insured or self-insured, for loss or destruction of, or physical damage to the following:

a. All tools, machinery, equipment and appliances that are owned by Contractor or loaned to or leased by Contractor by others than Company and that are not to be incorporated into the completed work; and,

b. All personal property of Contractor's employees; whether or not such loss, destruction or damage is caused by, arises out of, or is in any way connected with the negligence of Company, its employees or agents.

INDEMNITY

12. To the fullest extent permitted by law, Contractor shall defend, protect, indemnify and save Company, its parent company, partners, subsidiaries and any other related or affiliated entities, and their respective officers, directors and employees (collectively referred to for purposes of this Paragraph 12 as "Indemnitees") harmless from and against all claims, demands, lawsuits, causes of action, strict liability claims, penalties, fines, administrative law actions and orders, expenses (including, but not limited to, attorneys' fees) and costs of every kind and character arising out of or in any way incident to any of the work performed by Contractor, its subcontractors or the employees of either, on account of personal injuries, death, damage to property, damage to the environment, or infringement of any patent,

trademark, copyright or other property right, regardless of whether such harm is to Contractor, Indemnitees, the employees or officers of either or any other person or entity. The duty to defend, protect, indemnify and save Indemnitees harmless referred to in the preceding sentence shall include, but not be limited to, claims, demands, lawsuits, strict liability claims, penalties, fines, administrative law actions and orders, costs, expenses and causes of action that result from the comparative, concurrent or contributing negligence of any person or entity including, but not limited to, Indemnitees, their agents, employees or officers, except Contractor shall not be liable under this Paragraph 12 for loss or damage resulting from the sole (100%) negligence of Indemnitees. To the fullest extent permitted by law, Contractor further agrees to indemnify, defend and hold Indemnitees harmless against the payment of any and all taxes, penalties, fines, interest, liens or indebtedness or claims against Indemnitees' property or for work performed, or measured by the work performed, growing out of or incident to Contractor's operations under this agreement including, but not limited to, taxes, penalties, fines, interest, liens or encumbrances that result from the concurrent or contributing negligence of any person or entity, which may include Indemnitees, their agents, employees or officers. Contractor shall maintain at its own cost and expense insurance covering this indemnity provision.

If and to the extent that Section 623.015 of the Texas Transportation Code applies to work performed under this agreement by Contractor, its subcontractors or the employees of either, the above indemnity provision shall only apply to the extent permitted by such statute.

INSURANCE

13. In addition to any other insurance that Contractor shall acquire under this agreement, Contractor shall maintain at its own cost and expense such insurance of the types and in the amounts as required by Company to insure all of Contractor's obligations under this agreement and that will protect Company from all claims for damages to persons and to property that may arise from any operations under this agreement or any subcontracts related to this agreement. Contractor shall maintain during the entire term of this agreement insurance policies within minimum limits of coverage all as set forth on Exhibit B, which is made a part hereof by reference. Prior to commencing work, Contractor shall require its insurer or insurance agent to supply Company a certificate of insurance in the form as set forth on Exhibit C. Such insurance shall name Company as an additional insured in accordance with the requirements of Exhibit B, with such additional insured endorsements providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them). The insurance coverages to be provided by Contractor under this paragraph, including but not limited to the additional insured coverage provided to Company, shall be independent of the indemnity provisions of this agreement, and are not designed solely to guarantee payment of Contractor's indemnity obligations.

GENERAL PROVISIONS

14. This agreement may not be assigned in whole or in part by Contractor without the prior written consent of Company, nor shall work under the contract be assigned to a subcontractor without the prior written consent of Company.

15. No amendment to this agreement shall be valid unless made in writing and signed by authorized representatives of both parties.

16. Company's right to require strict performance of Contractor's obligations shall not be affected in any way by prior waiver, forbearance or other course of dealing.

17. This agreement and any subsequent amendments comprise the entire agreement between Company and Contractor, and there are no agreements, understandings, conditions, or representations, oral or written, expressed or implied, that are not merged into this agreement or superseded by it.

18. Subject to any restrictions imposed by applicable laws, if Contractor has a petition in bankruptcy filed by or against it, has a receiver appointed for it, becomes insolvent, makes a general assignment for the benefit of creditors, refuses or fails to supply competent supervision or enough properly skilled people or proper material, disregards laws, rules or regulations applicable to the work, or otherwise violates any provision of this agreement, then Company shall have the right (in addition to any other rights it may have at law or in equity) to treat such as a breach of this agreement and may, upon the giving of written notice, terminate this agreement, terminate employment of Contractor, and take possession of the premises, all materials, tools, equipment, supplies, and appliances of any type and finish the work by whatever method Company may deem appropriate.

19. Company may require Contractor to furnish a surety bond in the full amount of and guaranteeing faithful performance of this agreement, or otherwise guaranteeing Contractor's obligations under this agreement. Such bond(s) shall be written on a form prescribed or approved by Company and shall be purchased from a source approved by Company.

20. Company shall have the right, at any reasonable time and from time to time, to audit any and all records, documents and other data pertaining to this agreement. Contractor shall cooperate in furnishing to Company all such records, documents and other data in connection with any such audit.

21. Company does not guarantee an offer of work to Contractor during the term of this agreement. Company and Contractor agree, however, that any work offered by Company to Contractor and accepted by Contractor during the term of this agreement will be performed under the terms of this agreement. Company shall not be liable in damages or otherwise, if by reason of an act of God or public enemy, strike, lockout, boycott, picketing, riot, insurrection, fire, or any governmental order, rule, or regulation, or any ordinance Company shall be delayed in, or prevented from, furnishing any materials, equipment, facilities, services, etc., required to be furnished by it hereunder.

22. Contractor shall comply with and be subject to the most recent Substance Abuse Policy issued by Koch Industries, Inc. All employees of Contractor shall be subject to drug testing when on the premises of Company. In addition to the foregoing requirements, should Contractor perform services related to facilities regulated by the United States Department of Transportation, Contractor shall have developed and implemented, or have contracted with an organization that has developed and implemented, substance abuse policies in compliance with 41 U.S.C. 701, et seq., 49 C.F.R. Part 199 and 49 C.F.R. Part 40, if applicable; and, with respect to equal employment opportunity and affirmative action compliance, Contractor shall comply with the provisions of Section 202 of Executive Order 11246 and the rules and regulations issued pursuant to Section 201 thereof. Contractor shall provide Company with documentation demonstrating compliance with such laws upon the request of Company.

23. Contractor warrants and represents that, to the extent applicable to any activities that may be performed pursuant to this agreement by Contractor or its subcontractors, all of Contractor's employees and its subcontractors' employees have received all safety training required by law for employees working in an environment in which they may come in contact with crude oil, natural gas, natural gas liquids, refined products or hazardous materials. Contractor agrees to permit Company to inspect Contractor's records in order to assure compliance with this Paragraph 23.

24. In the event any provision herein shall be judicially interpreted or held to be void or otherwise unenforceable as written, such provision shall be deemed to be revised and modified to the extent necessary to make it legally enforceable. In any event, the remaining terms of the agreement shall be enforceable as though the void or unenforceable provision did not exist.

TERM

25. This agreement shall be effective as of the date above written and shall continue for a one-year period following that date. At the end of the initial one-year period the agreement shall continue until replaced by a subsequent agreement or otherwise revoked by written notice by either party.

So agreed on the date below written.

COMPANY
Koch Energy Services Company;
Koch Gateway Pipeline Company;
Koch Oil Company;
Koch Pipeline Company, L.P.;
Koch Refining Company, L.P.

By _____

Title _____

Date _____

COMPANY'S WITNESS

By _____

Date _____

CONTRACTOR
Miller Environmental Services, Inc.

By Charles M. H

Title PRESIDENT

Date 4/25/97

CONTRACTOR'S WITNESS

By _____

Date _____

KCM 4-25-97

Exhibit B
Insurance Requirements
Supplement to Intermittent Services Agreement
Agreement Number: 97-00335-A01

1.0 With respect to Contractor's performance of the agreement to which this exhibit is attached (referred to hereinafter as the "agreement"), Contractor shall maintain the following insurance:

1.1 Worker's Compensation and Employers' Liability Insurance, as prescribed by applicable law, including insurance covering liability under the Longshoremen's and Harbor Workers' Compensation Act, the Jones Act, Maritime Act of 1920 (Jones Act) and the Outer Continental Shelf Land Act, if applicable. Coverage will include an Alternate Employer Endorsement (WC 00 03 01) naming Company as an Alternate Employer.

1.2 Commercial General Liability Insurance, which shall be no less comprehensive and no more restrictive than the coverage provided by a standard form Commercial General Liability Policy ISO CG 00 01 11 85, CG 00 01 10 93, or CG 00 01 01 96 with standard exclusions "a" through "n", with a minimum combined single limit of $3,000,000 per occurrence for Bodily Injury and Property Damage and a $3,000,000 aggregate each for the general policy and the Products/Completed Operations hazard. This insurance must include the following features:

1.2.1 If work to be performed by Contractor includes construction or demolition operations within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing, and if Contractor's commercial general liability insurance policy is form ISO CG 00 01 11 85, then such policy will include a Railroad's Contractual Liability Endorsement CG 24 17 10 93.

1.2.2 Contractual Liability coverage.

1.2.3 Products and Completed operations.

1.2.4 Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of the ground (XCU coverage), if applicable.

1.2.5 Coverage will include Additional Insured - Owners, Lessees or Contractors (Form B) Endorsement (CG 20 10 10 93) naming Company as an additional insured.

1.3 Automobile Liability Insurance, covering all owned, non owned, hired and leased vehicles with a minimum combined single limit for Bodily Injury and Property Damage of $3,000,000 per accident. This insurance must include contractual liability coverage.

1.4 Aircraft Liability Insurance - If any operations require the use of aircraft, including helicopters, Contractor shall maintain or require owners of such aircraft to maintain Aircraft Liability Insurance with a combined single limit of not less than $5,000,000 for bodily injury and property damage (including passenger) liability.

1.5 Hull and Machinery Insurance covering vessels or barges owned or bareboat chartered by Contractor and used by Contractor in the performance of the agreement. Such vessels shall be insured for no less than the fair market value of such vessel or barge. Coverage shall include Collision Liability Insurance with limits no less than $5,000,000.

1.6 Protection and Indemnity Insurance - If marine work is to be performed under the agreement, Contractor shall maintain Protection and Indemnity Insurance, including coverage for injuries to or death of masters, mates and crews of vessels used in the performance of the agreement. The limits of liability of such insurance shall not be less than $5,000,000 per occurrence. Contractor may cover its obligation for loss of life or bodily injury to the crew of the vessel by extension of the Workers Compensation Insurance 1.1 above (Jones Act). Coverage shall also include pollution liability for loss as specified in the requirements of applicable United States Federal and State Laws. All certificates evidencing financial responsibility shall be current and carried on board.

1.7 Railroad Protective Liability - If required by Company, Contractor shall maintain Railroad Protective Liability insurance naming the railroad as the insured with a limit for bodily injury and property damage liability of $2,000,000 per occurrence, $6,000,000 aggregate. The original of said policy shall be furnished to railroad prior to any construction or entry upon the railroad easement premises by Contractor.

1.8 Umbrella / Excess Insurance - The limits specified in 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 above may be satisfied with a combination of primary and Umbrella/Excess Insurance.

2.0 Policy Endorsements

2.1 The above insurance shall include a requirement that the insurer provide Company with thirty (30) days' written notice prior to the effective date of any cancellation or material change of the insurance.

2.2 The insurance specified in Section 1.2, 1.4, 1.5, 1.6 and 1.8 hereof shall:
(i.) name Company as an additional insured with respect to work performed for Company, with such additional insured endorsement (CG 20 10 10 93) providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them); and;
(ii.) be primary to and not in excess of or contributory with any other insurance available to Company.

3.0 Evidence of Insurance - Contractor shall, before commencing work, provide Company with a certificate (see attached Exhibit C) satisfactory to Company of the insurance coverages and endorsements set forth in Sections 1.0 and 2.0 above. If requested by Company, Contractor shall provide Company with certified copies of all policies.

4.0 Waiver of Subrogation

4.1 Contractor, on behalf of its insurers, waives any right of subrogation that such insurers may have against Company arising out of this agreement.

4.2 The insurance specified in Section 1.1 hereof shall contain a waiver of the right of subrogation against Company and an assignment of statutory lien, if applicable.

4.3 Any physical damage insurance carried by Contractor on construction equipment, tools, temporary structures and supplies owned or used by Contractor shall provide a waiver of the right of subrogation against Company.

5.0 The obligation to carry the insurance required by this Exhibit shall not limit or modify in any way any other obligations assumed by the Contractor under the agreement. Contractor shall be held accountable for all insurance coverages, including those of sub-contractors. Company shall not be under any duty to advise Contractor in the event that Contractor's insurance is not in compliance with this agreement. ACCEPTANCE OF ANY INSURANCE CERTIFICATE SHALL NOT CONSTITUTE ACCEPTANCE OF THE ADEQUACY OF COVERAGE, COMPLIANCE WITH THE REQUIREMENTS OF THE AGREEMENT, OR AN AMENDMENT TO THE AGREEMENT.

Personnel

Description	Location
20 - Supervisors	Corpus Christi, TX
6 - Supervisors	Sulphur, LA
6 - Supervisors	Beaumont, TX
12 - Foreman	Corpus Christi, TX
6 - Foreman	Sulphur, LA
6 - Foreman	Beaumont, TX
35 - Operators	Corpus Christi, TX
12 - Operators	Sulphur, LA
10 - Operators	Beaumont, TX
75 - Technicians	Corpus Christi, TX
25 - Technicians	Sulphur, LA
25 - Technicians	Beaumont, TX

Boats

Description	Location
1 – 14' 350 HP Air Ranger Air Boat	Corpus Christi, TX
1 – 18' 400 HP Trail Boss Air Boat	Sulphur, LA
4 – 14' to 16' Jon Boats w/ 25 HP Outboard Motors	Corpus Christi, TX
2 – 14' to 16' Jon Boats	Sulphur, LA
2 – 16' Jon Boats w/ 25 HP Outboard Motors	Sulphur, LA
4 – 16' to 18' Jon Boats w/ Outboard Motors	Corpus Christi, TX
2 – 18' Work Boat w/ 90 HP Outboard Motor	Sulphur, LA
2 – 18' Work Boat w/ 90 HP Outboard Motor	Beaumont, TX
1 – 18' Work Boat w/ 115 HP Outboard Motor	Corpus Christi, TX
1 – 26' Fast Response Boat w/ Twin 150 HP Outboard Motors	Corpus Christi, TX
1 – 28' Fast Response Barge Boat w/ Twin 150 HP Outboard Motors	Sulphur, LA
2 – 24' Fast Response Boat w/ 150 HP Outboard Motor	Corpus Christi, TX
2 - 24' Fast Response Boat w/ 150 HP Outboard Motor	Beaumont, TX
1 - 24' Fast Response Boat w/ Twin 150 HP Outboard Motors	Sulphur, LA

Skimmers and Pumps

Description	Location
1 – MARCO Sidewinder 14 Harbor Voss Skimmer	Corpus Christi, TX
1 – Foilex TDS 250 Skimming System	Corpus Christi, TX
1 – ACME Saucer Skimmer 48"	Sulphur, LA
1 – SLURP Floating Skimmer	Corpus Christi, TX
2 – Elastec TDS 136 Drum Skimmer	Corpus Christi, TX
1 – Elastec TDS 118 Drum Skimmer	Corpus Christi, TX
1 – Elastec TDS 136 Drum Skimmer	Sulphur, LA
2 – 36" Goo Gobbler Skimmer	Sulphur, LA
1 – 36" Goo Gobbler Skimmer	Beaumont, TX
2 – 36" SkimPak Skimmer	Sulphur, LA
1 – Skimmex Vacuum Skimmer w/ Hopper	Corpus Christi, TX
3 – 2" Wash Pumps	Corpus Christi, TX
2 – 2" Wash Pumps	Beaumont, TX
4 – 2" Wash Pumps	Sulphur, LA
4 – 2" Pneumatic Diaphragm Pumps	Corpus Christi, TX
2 – 2" Pneumatic Diaphragm Pumps	Sulphur, LA
1 – 2" Pneumatic Diaphragm Chemical Pump	Sulphur, LA
2 – 3" Pneumatic Diaphragm Pumps	Corpus Christi, TX
3 – Portable High Pressure Steam Cleaner	Corpus Christi, TX
1 – Portable High Pressure Steam Cleaner	Sulphur, LA
1 – Portable High Pressure Steam Cleaner	Beaumont, TX
1000 Ft. - 2" OS&D Hose	Corpus Christi, TX
1000 Ft. - 2" OS&D Hose	Sulphur, LA
2000 Ft. - 3" OS&D Hose	Corpus Christi, TX
2000 Ft. - 3" OS&D Hose	Sulphur, LA
400 Ft. - 4" OS&D Hose	Corpus Christi, TX
400 Ft. - 4" OS&D Hose	Sulphur, LA

Vehicles and Trailers

Description	Location
37 – Pick Up Trucks	Corpus Christi, TX
10 – Pick Up Trucks	Sulphur, LA
10 – Pick Up Trucks	Beaumont, TX
11 – 4x4 Pick Up Trucks	Corpus Christi, TX
2 – 4x4 Pick Up Trucks	Beaumont, TX
4 – 4x4 Pick Up Trucks	Sulphur, LA
30 – 70 BBL Supervac D.O.T. Spec. Vacuum Trucks	Corpus Christi, TX
16 – 70 BBL Supervac D.O.T. Spec. Vacuum Trucks	Beaumont, TX
6 – 70 BBL Supervac D.O.T. Spec. Vacuum Trucks	Sulphur, LA
6 – 16 Cubic Yard Supersucker Air Movers	Corpus Christi, TX
4 – 16 Cubic Yard Supersucker Air Movers	Beaumont, TX
2 – 16 Cubic Yard Supersucker Air Movers	Sulphur, LA
6 – 130 BBL Vacuum Truck D.O.T. Spec.	Corpus Christi, TX
2 – 130 BBL Vacuum Truck D.O.T. Spec.	Beaumont, TX
2 – 130 BBL Vacuum Truck D.O.T. Spec.	Sulphur, LA
5 – Bob Tail Roll Off Trucks	Corpus Christi, TX
4 – Bob Tail Roll Off Trucks	Beaumont, TX
2 – Bob Tail Roll Off Trucks	Sulphur, LA
6 – Roll Off Trucks (Tractor/Trailer)	Corpus Christi, TX
4 – Roll Off Trucks (Tractor/Trailer)	Beaumont, TX
3 – Roll Off Trucks (Tractor/Trailer)	Sulphur, LA
5 – Boom Trailers	Corpus Christi, TX
3 – Boom Trailers	Sulphur, LA
3 – Boom Trailers	Beaumont, TX
4 – Response Trailers	Corpus Christi, TX
1 – Response Trailer	Beaumont, TX
1 – Response Trailer	Sulphur, LA
8 – Equipment Trailers	Corpus Christi, TX
2 – Equipment Trailers	Sulphur, LA
2 – Equipment Trailers	Beaumont, TX
1 – Emergency Response Unit / Field Office	Corpus Christi, TX
1 – Haz-Mat Response Trailer w/ Command Center	Sulphur, LA
1 – Haz-Mat Response Trailer	Corpus Christi, TX
1 – Command Center Trailer	Corpus Christi, TX

Temporary Storage

Description	Location
160 – 500 BBL Frac Tanks (Non-Dedicated)	Sulphur, LA
200 – 20 Yard Roll Off Boxes (Non-Dedicated)	Sulphur, LA
2 – 20 Yard Roll Boxes	Sulphur, LA
90 – Roll Off Storage and Transportation Containers (Non-Dedicated)	Corpus Christi, TX

Booming Systems

Description	Location
50,000 Ft. – 18" Containment Boom	Corpus Christi, TX
24,000 Ft. – 18" Containment Boom	Sulphur, LA
14,000 Ft. – 18" Containment Boom	Beaumont, TX
2,000 Ft. – 10" Containment Boom	Corpus Christi, TX
600 Ft. – 10" Containment Boom	Sulphur, LA
32,000 Ft. – 18" Containment Boom (Non-Dedicated)	Houston, TX
8 – 24" Marker Buoys	Sulphur, LA
6 – 24" Marker Buoys	Beaumont, TX
10 – 24" Marker Buoys	Corpus Christi, TX
8 – 25 Lbs. Danforth Anchors	Sulphur, LA
6 – 25 Lbs. Danforth Anchors	Beaumont, TX
10 – 25 Lbs. Danforth Anchors	Corpus Christi, TX
10 – Boom Warning Lights	Sulphur, LA

Miscellaneous Equipment and Expendables

Description	Location
400 – 1A2/Y1.6/150.97 55 Gal. Steel Open Top Drums	Sulphur, LA
150 – 1A2/Y1.6/150.97 55 Gal. Steel Open Top Drums	Corpus Christi, TX
50 – 17/E 55 Gal. Steel Open Top Drums	Corpus Christi, TX
10 – 95 Gallon Poly Over Packs	Sulphur, LA
10 – 85 Gallon Polly Over Packs	Corpus Christi, TX
Whse. Inv. – 17 x 19 x 3/8 12 oz. Sorbent Pads, Dimpled	Sulphur, LA
Whse. Inv. – 17 x 19 x 3/8 12 oz. Sorbent Pads, Dimpled	Corpus Christi, TX
Whse. Inv. – 17 x 19 x 3/8 12 oz. Sorbent Pads, Dimpled	Beaumont, TX
Whse. Inv. – 38 x 144 12 oz. Sorbent Rolls, Dimples	Sulphur, LA
Whse. Inv. – 38 x 144 12 oz. Sorbent Rolls	Corpus Christi, TX
Whse. Inv. – 38 x 144 12 oz. Sorbent Rolls	Beaumont, TX
Whse. Inv. – 8 x 10 Sorbent Boom Single Net	Corpus Christi, TX
Whse. Inv. – 8 x 10 Sorbent Boom Double Net	Sulphur, LA
Whse. Inv. – 8 x 10 Sorbent Boom Single Net	Beaumont, TX
Whse. Inv. – 5 x 10 Sorbent Boom Single Net	Corpus Christi, TX
Whse. Inv. – 5 x 10 Sorbent Boom Double Net	Sulphur, LA
Whse. Inv. – 5 x 10 Sorbent Boom Single Net	Beaumont, TX
Whse. Inv. – 17 x 19 x 12 oz. Chemical Sorbent Pads	Sulphur, LA
Whse. Inv. – 17 x 19 x 12 oz. Chemical Sorbent Pads	Corpus Christi, TX
Whse. Inv. – 100 x 18 Sorbent Sweep	Sulphur, LA
Whse. Inv. – 100 x 18 Sorbent Sweep	Corpus Christi, TX
Whse. Inv. – (30/Box) Sorbent Snare	Sulphur, LA
Whse. Inv. – (30/Box) Sorbent Snare	Corpus Christi, TX
Whse. Inv. – Clay Particulate Absorbent	Sulphur, LA
Whse. Inv. – Clay Particulate Absorbent	Corpus Christi, TX
Whse. Inv. – Clay Particulate Absorbent	Beaumont, TX

Miscellaneous Equipment and Expendables

Description	Location
1 – 175 CFM Air Compressor	Corpus Christi, TX
2 – 4 KW Generators	Corpus Christi, TX
2 – 4 KW Generators	Sulphur, LA
10 – 800 MHz Radios	Corpus Christi, TX
5 – 800 MHz Radios	Sulphur, LA
3 – Multi-gas Direct Read Air Monitors (Non-Dedicated)	Corpus Christi, TX
1 – Aim 3000 Multi-gas Direct Read Air Monitor	Sulphur, LA
1 – Synsidyne Colormetric Pump / Monitor	Sulphur, LA
1 – MSA - 3 Gas Monitor	Sulphur, LA
1 – PID Air Monitor (Non-Dedicated)	Corpus Christi, TX
3 – H2S Monitors (Non-Dedicated)	Corpus Christi, TX

Hydroblasting Equipment (DeCon)

Description	Location
1 – 11 GPM 20K Hydroblaster	Corpus Christi, TX
1 – 28 GPM 10K Hydroblaster	Corpus Christi, TX
1 – 47 GPM 10K Hydroblaster	Corpus Christi, TX
1 – 34 GPM 10K Hydroblaster	Sulphur, LA
1 – 68 GPM 10K Hydroblaster	Sulphur, LA
1 – 47 GPM 10K Hydroblaster w/ 20K Converter Pressure Head	Sulphur, LA
1 – 21 GPM 20K Hydroblaster	Sulphur, LA
1 – High Pressure Cutting Machine w/ Accessories	Corpus Christi, TX

Miller Environmental's Industrial Services Division cleans out and decontaminates tanks, vessels and plant equipment daily, enhancing our abilities to decontaminate response equipment and vessels on site.

TAS ENVIRONMENTAL SERVICES L.P.

3929 California Parkway E.

Fort Worth, TX 76119

(817) 535-7222

RESPONSE EQUIPMENT SCHEDULE

NORTHERN REGION

PHMSA 000028672

TAS ENVIRONMENTAL SERVICES L.P.

3929 California Parkway E.

Fort Worth, TX 76119

(817) 535-7222

RESPONSE EQUIPMENT SCHEDULE

SOUTHERN REGION

PHMSA 000028673

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Boom Type Codes		End Connector Codes	
F	Fence	ASTM	ASTM Std (D962-86)
FR	Fire	BOLT	Bolt Connector
PI	Inflatable (Press)	HP	Hinge & Pin
SI	Inflatable (Self)	Z	Quick-Connect Z
MR	Marsh (Upper air	RC	Raised Channel
	chamber with lower	SNAV	Slide (US Navy)
	water chamber)	SLOT	Slotted Tube
R	Round	US1	Universal Slide Type 1
WB	Weir Boom	US2	Universal Slide Type 2
OT	Other	OT	Other

BOOM EQUIPMENT

Name of Manufacturer	Model Number	Boom Type Code	Inventory Length (feet)	Skirt Size (inches)	Float Size (inches)	End Connector Type Code	Time to Deploy	Storage Location	Owner
ACME Products Co. Inc.	"OK Corral	R	300	12	6	Z	2	San Antonio	TAS
ACME Products Co. Inc.	"OK Corral	R	600	6	6	Z	2	San Antonio	TAS
ACME Products Co. Inc.	"Super Mini"	R	100	4	2.5	BOLT	0.5	San Antonio	TAS
ACME Products Co. Inc.	"OK Corral	R	5000	12	6	Z	3	Austin	TAS

PHMSA 000028674

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Communications Type Codes			
AF	Aviation Frequency	**MF**	Marine Frequency
CP	Cellular Phone	**PAG**	Pager
COM	Command Post	**PHH**	Portable Hand Held
MOD	Computer w/modem	**SSB**	Single Side Band
FAX	Facsimile	**TP**	Telephone
FBS	Fixed Base Station	**OT**	Other

COMMUNICATIONS EQUIPMENT

Name of Manufacturer	Model Number	Comm. Type	# of Units	Frequency	Band	Range (miles)	Field Tunable		Storage Location	Owner
							Yes	No		
Verizon		PTT	8					X	San Antonio	TAS
Verizon		PTT	5					X	Austin	TAS
Satellite Phone		CP	2					X	Austin	TAS

PHMSA 000028675

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

HEAVY EQUIPMENT / RESPONSE VEHICLES

Name of Manufacturer	Heavy Equipment / Response Vehicles	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Dodge (326)	P/U Truck / 3/4 Ton - Emergency Response	1		X	San Antonio	TAS
GMC (308)	4 x 4 - 3/4 Ton - Emergency Response	1		X	San Antonio	TAS
Chevrolet (315)	P/U Truck / 1 Ton - Emergency Response	1		X	San Antonio	TAS
Chevrolet (318)	P/U Truck / 3/4 Ton - Emergency Response	1		X	San Antonio	TAS
Ford (296) Lift Gate	P/U Truck / 1 Ton - Emergency Response	1		X	San Antonio	TAS
3500 psi / C & S Trailer (550)	Heated Pressure Washer / 14 ft Trailer	1		X	San Antonio	TAS
Modern Mfg. (482)	22 ft GN Double Boat Hauler	1		X	San Antonio	TAS
C & S Trailer - Pace (544)	20 ft GN Flatbed Trailer - Utility	1		X	San Antonio	TAS
Top Hat (540)	20 ft GN Cage Trailer	1		X	San Antonio	TAS
Kenworth (38)	Rolloff Truck - Bobtail	1		X	San Antonio	TAS
Holt Cat 257B	Skid Steer Loader	1		X	San Antonio	TAS
Holt / CAT	Rubber Trac - 305 Excavator	1		X	San Antonio	TAS
V.E. Enterprises (Frac Tank 1)	10,000 Gallon Frac Tank	1		X	San Antonio	TAS
Dragon (554)	Rolloff Truck - Skid Unit	1		X	San Antonio	TAS
C & S Trailer - Pace (555)	28 ft Trailer - Emergency Response - Gooseneck	1		X	San Antonio	TAS
VE Enterprises	Roll-off Box - 20 cubic yard box	14		X	San Antonio	TAS
VE Enterprises	Roll-off Box - 25 cubic yard box	1		X	San Antonio	TAS

PHMSA 000028676

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

HEAVY EQUIPMENT / RESPONSE VEHICLES

Name of Manufacturer	Heavy Equipment / Response Vehicles	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Ford (305)	P/U Truck / F-550 Emergency Response-Utility Bed	1		X	Austin	TAS
Dodge (322)	P/U Truck / 1 Ton - Emergency Response	1		X	Austin	TAS
Chevrolet (335)	P/U Truck 3/4 Ton - Emergency Response	1		X	Austin	TAS
Chevrolet (334)	4 x 4 P/U Truck / 1 Ton - Emergency Response	1		X	Austin	TAS
Chevrolet (303,306)	4 x 4 P/U Truck / 3/4 Ton - Emergency Response	2		X	Austin	TAS
Chevrolet (301)	4 x 4 - 1 Ton - Emergency Response	1		X	Austin	TAS
508	18 ft ER Cargo Trailer	1		X	Austin	TAS
Yamaha	Grizzly 600 - 4 Wheeler / 4WD	1		X	Austin	TAS
Top Hat (545)	10 ft Utility Trailer	1		X	Austin	TAS
Top Hat (502)	16 ft Utility Trailer - Bumper Pull	1		X	Austin	TAS
Kubota	50 hp Tractor with 6 ft Shredder	1		X	Austin	TAS
Kubota 3500 psi / Top Hat Trailer (536)	Heated Pressure Washer / 16 ft Trailer	1		X	Austin	TAS
C & S Trailer (538)	16 ft Gooseneck Flatbed with box cab	1		X	Austin	TAS
Wells Cargo (504)	14 ft Emergency Response Trailer	1		X	Austin	TAS
C & S Trailer (546)	20 ft GN Tilt Trailer	1		X	Austin	TAS

PHMSA 00002867

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS BOOM EQUIPMENT

Name of Manufacturer	Model Number	Equipment Type	Qty.	Storage Location	Owner

PHMSA 000028678

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
QRae Systems - 4 Gas Air Monitor	(LEL,H2S,O2,CO)	2		X	San Antonio	TAS
QRae Systems - 4 Gas Air Monitor	(LEL,H2S,O2,CO)	5		X	Austin	TAS
Rae Systems Photo Ionization Detector	PID	1		X	San Antonio	TAS
Rae Systems Photo Ionization Detector	PID	1		X	Austin	TAS
Drager - CMS	CMS	1		X	San Antonio	TAS
MSA	SCBA	4		X	San Antonio	TAS
MSA	SCBA	2		X	Austin	TAS
DBI / SALA	Tripod with retrieveal device	1		X	San Antonio	TAS

PHMSA 000028679

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Homelite	Chainsaw - 14 inch	1		X	San Antonio	TAS
Homelite	Chainsaw - 14 inch	1		X	Austin	TAS
Honda	Portable Air Compressor	1		X	San Antonio	TAS
Briggs & Stratton	Portable Air Compressor	1		X	San Antonio	TAS
Speedaire	Portable Air Compressor	1		X	Austin	TAS
Volt	10 K Generator - Response Trailer	1		X	San Antonio	TAS
Multiquip	6K Generator	2		X	San Antonio	TAS
Multiquip	6K Generator	1		X	Austin	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Air Systems International	Coppus Ventilation Fan	1		X	San Antonio	TAS
Goodall Rubber	Chemical Hose - 2 inch - Durodyne	100ft		X	San Antonio	TAS
Goodall Rubber	Chemical Hose - 2 inch - Durodyne	50ft		X	Austin	
Goodall Rubber	Petro Hose - 2 inch	100ft		X	San Antonio	TAS
Goodall Rubber	Petro Hose - 2 inch	50ft		X	Austin	
Fire Extinguisher	Fire Extinguisher ABC	12		X	San Antonio	TAS
Fire Extinguisher	Fire Extinguisher ABC	6		X	Austin	
Nilfisk	HEPA / Mercury Vacuum	1		X	San Antonio	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Dayton	Drum Head Vacuum	2		X	San Antonio	TAS
Dayton	Drum Head Vacuum	1		X	Austin	TAS
John Deere	Box Blower	1		X	San Antonio	TAS
	Portable Light Stand	2		X	San Antonio	TAS
	Portable Light Stand	2		X	Austin	TAS
Mercury	Boat Motor - 25 hp Outboard	1		X	San Antonio	TAS
Johnson	Boat Motor - 25 hp Outboard	2		X	Austin	TAS
	Trolling Motor	1		X	San Antonio	TAS
Homelite	Weedeater	1		X	San Antonio	TAS
Homelite	Weedeater	2		X	Austin	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
	Confined Space Box - Various CSR Equipment	1		X	San Antonio	TAS
	Pallet Jack - 5000 lb	1		X	San Antonio	TAS
	Pallet Jack - 5000 lb	1		X	Austin	TAS
Minuteman	HEPA Vacuum	1		X	San Antonio	TAS
Rigid	Wet / Dry Vacuum	3		X	San Antonio	TAS
Rigid	Wet / Dry Vacuum	1		X	Austin	TAS
	Bunker Gear	6 sets		X	San Antonio	TAS
	Bunker Gear	3 sets		X	Austin	TAS
MSA	Respirator	14		X	San Antonio	TAS
MSA	Respirator	10		X	Austin	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Dallas Steel Drum	Drum Overpack, 85 gal steel	20		X	San Antonio	TAS
Dallas Steel Drum	Drum Overpack, 85 gal steel	20		X	Austin	TAS
Kappler	Personal Protective Equipment, Level A Suit	3		X	San Antonio	TAS
Kappler	Personal Protective Equipment, Level A Suit	3		X	Austin	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Design Type Codes		Drive Codes	
BF	Baffle System	D	Diesel
B	Barge	E	Electric
CF	Coalescing Filter System	G	Gasoline
A	Emulsifier Additive	H	Hydraulic
FT	Frac Tank	P	Pneumatic
OT	Other	OT	Other

SUB-CONTRACTOR FRAC AND R/O BOX EQUIPMENT

Name of Manufacturer	Model Number	Design Type Code	Drive Type Code	# of Units	Production Rate (gpm)	Storage Location	Owner
Baker Tanks - Houston	Frac Tank	FT		165		Houston	Baker Tanks
Baker Tanks - Houston	Roll off Box			400		Houston	Baker Tanks
Baker Tanks - Freeport	Frac Tank	FT		100		Freeport	Baker Tanks
Baker Tanks - Freeport	Roll off Box			115		Freeport	Baker Tanks
Baker Tanks - Corpus Christi	Frac Tank	FT		70		Corpus Christi	Baker Tanks
Baker Tanks - Corpus Christi	Roll off Box			100		Corpus Christi	Baker Tanks
Baker Tanks - Beaumont	Frac Tank	FT		25		Beaumont	Baker Tanks
Baker Tanks - Beaumont	Roll off Box			100		Beaumont	Baker Tanks
Baker Tanks - Kilgore	Frac Tank	FT		175		Kilgore	Baker Tanks
Baker Tanks - Kilgore	Roll off Box			100		Kilgore	Baker Tanks
Baker Tanks - SA	Frac Tank	FT		8		San Antonio	Baker Tanks
Baker Tanks - SA	Roll off Box			10		San Antonio	Baker Tanks
Cima Transportation	Roll off Box			35		DFW	Cima Transportation
FCC - DFW	Frac Tank	FT		4		DFW	FCC
FCC - DFW	Roll off Box			5		DFW	FCC
FCC- San Antonio	Frac Tank	FT		8		San Antonio	FCC
Evergreen Tanks	Frac Tank	FT		50		Bossier City	ETS
Evergreen Tanks	Roll off Box			100		Bossier City	ETS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Pump Codes		Drive Codes	
A	Auger/Screw	D	Diesel
C	Fire	E	Electric
P	Parastolic	G	Gasoline
R	Reciprocating	H	Hydraulic
I	Rotary/Flexible Impeller	P	Pneumatic
OT	Other	OT	Other

PUMP EQUIPMENT

Name of Manufacturer	Model Number	Pump Type Code	Drive Type Code	Suction/Disch. Size (inches)	Mfg. Pump Rate (gpm)	Qty.	Storage Location	Owner
Wilden	M-8 SS	OT	P	2	180	1	San Antonio	TAS
ARO Ingersollrand	M-2	OT	P	1	35	1	San Antonio	TAS
ARO Ingersollrand	M-2 SS	OT	P	1	35	1	San Antonio	TAS
Yanmar	L48AE-DEB	OT	D	2	180	1	San Antonio	TAS
Honda	WT30X	OT	G	3	250	1	San Antonio	TAS
Wilden	M-2 Poly	OT	P	2	50	1	Austin	TAS
Wilden	M-2 Aluminum	OT	P	2	50	1	Austin	TAS
Wilden	M-8 Aluminum	OT	P	2	180	1	Austin	TAS
Yanmar	L48AE-DEB	OT	D	2	180	1	Austin	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

System Type Codes		Drive Codes	
PU	Portable Vacuum Pump Units	D	Diesel
SS	Super Sucker	E	Electric
VT	Vacuum Truck	G	Gasoline
OT	Other	H	Hydraulic
		P	Pneumatic
		OT	Other

VACUUM SYSTEM EQUIPMENT

Name of Manufacturer	Model Number	System Type Code	Drive Type Code	Suction (inches)	Number of Units	Mfg. Recovery Rate (gpm)	Storage Capacity (gallon)	Hose Invent. (feet)	Storage Location	Owner
Press Vac / Kenworth (CS)	39	VT	D	28	1	200	3000	150	San Antonio	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Response Boat Type Codes		Transporation Method Codes	
BAY	Bay Waters	NT	Normal Trailer
JB	Jon Boat	WO	Water Only
LFB	Large Flat Bottom	WL	Wideload Trailer
OFF	Offshore	OT	Other
PRO	Protected Waters		
TC	Towing Capable		
OT	Other		

RESPONSE BOATS

Name of Manufacturer	Model Number	Boat Type Code	Horse Power	Normal Crew Size	Length/ Beam	Draft Limit	Number of Boats	Transport Method Code	Storage Location	Owner
Lowe	1650	JB	25	2	16'6	1'	1	NT	Austin	TAS
Alumaweld	1450	JB	25	2	14'6'	1'	1	NT	Austin	TAS
Alumaweld	1650	JB	25	2	16'6	1'	1	NT	San Antonio	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Skimmer Type Codes			
FS	Floating Suction	**HIP**	Hydrodynamic Inclined Plane
IV	Induces Vortex	**OB**	Oleophilic Belt
OD	Oleophilic Disk	**OR**	Oleophilic Rod
PW	Paddle-Wheel	**SK**	Sock
W	Weir	**OT**	Other

SKIMMER EQUIPMENT

Name of Manufacturer	Model Number	Skimmer Type Codes	# of Units	Mfg. Recovery Rate (gpm)	Hose Size Suction/ Discharge (inches)	Time to Deploy	Storage Location	Owner
ACME Products Co., Inc.	FS400ASK-39T	W	1	275	3	1	San Antonio	TAS
Douglas Engineering	4200SH Skim Pack	FS	2	68	2	0.5	Austin	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Sorbent Type Codes		Composition Codes	
B	Boom	M	Mineral
PAD	Pad	NO	Natural Organic
PT	Particulate	S	Synthetic
ST	Sheet	OT	Other
SW	Sweep		
OT	Other		

Name of Manufacturer	Model Number	Sorbent Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Int'l Permalite Corp.	TAS-DICA18	PT	MS	30		X		X	San Antonio	TAS
Int'l Permalite Corp.	TAS-DICA18	PT	MS	30		X		X	Austin	TAS
Complete Env	TAS-P100	PAD	S	100		X		X	San Antonio	TAS
Complete Env	TAS-P100	PAD	S	25		X		X	Austin	TAS
Complete Env	TAS-B510	B	S	50		X		X	San Antonio	TAS
Complete Env	TAS-B510	B	S	20		X		X	Austin	TAS
Complete Env	TAS-B810	B	S	50		X		X	San Antonio	TAS
Complete Env	TAS-B810	B	S	20		X		X	Austin	TAS

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TAS ENVIRONMENTAL SERVICES, LP

2011 - PREP Report

Date	Company	Location	Drill Typ	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
1/4/11		Carrollton, TX	ER	ransporatic	Diesel	2		X	X		X
1/4/11		Carrollton, TX	ER	ansportati	Diesel	2.5			X		X
1/4/11		Grapevine, TX	ER	ansportati	Ethylene Glycol	7.5					X
1/6/11		Garland, TX	ER	ansportati	PCB MineralOil	3.5					X
1/6/11		Garland, TX	ER	Facility	Mineral Oil	3.5					X
1/11/11		Grapevine, TX	ER	ransporatic	Ethlylene Glycol	7					X
1/16/11		Terrell	ER	ransporatic	Diesel	1			X		X
1/16/11		Terrell, TX	ER	ansportati	Diesel	1.3			X		X
1/18/11		Bremond, TX	ER	ansportati	Motor Oil	1.5					X
1/19/11		Grapevine, TX	ER	ansportati	Diesel	1.5					X
1/19/11		Grapevine, TX	ER	ansportati	Diesel	1.5					X
1/20/11		Colbert, OK	ER	ansportati	Paint Related	1.5					X
1/21/11		Colbert, OK	ER	ansportati	Polyphase PW40	3					X
1/26/11		Forney, TX	ER	Facility	Sodium Hypochlorite	15		X			X
1/26/11		Forney, TX	ER	Facility	Bleach	15.5		X			X
1/30/11		Benbrook, TX	ER	ansportati	Diesel	2					X
2/3/11		McKinney	ER	Facility	Anti-Freeze	2.5					X
2/3/11		Cresson, TX	ER	ansportati	oil/water	23		X			X
2/3/11		McKinney, TX	ER	Facility	Anti-Freeze	3					X
2/5/11		Garland, TX	ER	ansportati	Diesel	2					X
2/5/11		Garland, TX	ER	ansportati	Diesel	2					X
2/6/11		Frisco, TX	ER	ansportati	Diesel	2					X
2/8/11		Grapevine, TX	ER	ranspotatic	Gasoline/water	214		X	X		X
2/11/11		Dallas, TX	ER	ansportati	Red Dye, Diesel, Gas	87		X	X		X
2/18/11		Fort Worth, TX	ER	ansportati	Diesel	1.5					X
2/18/11		Cleburne, TX	ER	ansportati	Diesel	2		X			X
2/22/11		Melissa, TX	ER	ansportati	Diesel	5					X
2/23/11		Arlington, TX	ER	ansportati	Diesel	1.5					X
2/25/11		Irving, TX	ER	ransporatic	Benzyl Salicylate	1					X
3/2/11		Krum, TX	ER	ansportati	Diesel	4.5					X
3/2/11		Cleburne, TX	ER	Facility	Hydrocholic Acid	1.5		X			X
3/2/11		Krum, TX	ER	Facility	Diesel	1					X
3/7/11		Godley, TX	ER	ansportati	Diesel	1.5					X
3/10/11		Decatur,TX	ER	Facility	Corr. Inhibitor	1					X

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3/14/11	[redacted]	Sherman, TX	ER	ansportati	Diesel	1					X
3/24/11		San Antonio, TX	Spill Dril	Pipeline	Diesel	3					
4/4/11		Mansfield, TX	ER	ansportati	Diesel	1					X
4/12/11		Sunnyvale, TX	ER	ansportati	Pesticide	1					X
4/13/11		Burleson, TX	ER	ansportati	Diesel	2.5			X		X
4/20/11		Collinsville, TX	ER	ansportati	Diesel	4			X		X
4/20/11		Alvarado, TX	ER	Facility	Waste Oil	1			X		X
4/22/11		Milford, TX	ER	ansportati	Diesel	1					X
4/29/11		Duncanville, TX	ER	ansportati	Motor Oil	1.3					X
5/18/11		Lewisville, TX	ER	ansportati	Mineral Oil	1					X
5/18/11		Lewisville, TX	ER	Facility	Mineral Oil	1					X
5/23/11		Fort Worth, TX	ER	ansportati	Diesel	2		X	X		X
5/24/11		Crowley, TX	ER	ansportati	Diesel	2			X		X
5/25/11		Quinlan, TX	ER	Facility	Mineral Oil	1			X		X
5/26/11		Fort Worth, TX	ER	ansportati	Diesel	2			X		X
5/27/11		Rhome, TX	ER	ansportati	Diesel	5					X
5/31/11		Mertens, TX	ER	Facility	Transmix	1			X		X
5/31/11		Anna, TX	ER	Facility	Diesel	29.5			X		X
6/3/11		Irving, TX	ER	ansportati	Diesel	1.5					X
6/4/11		Hurst, TX	ER	Facility	Cooking Oil	5		X			X
6/8/11		Lewisville, TX	ER	Facility	Mineral Oil	2.5					X
6/9/11		Justin, TX	ER	Facility	Mineral Oil	1.3					X
6/10/11		Dallas, TX	ER	Facility	Vinegar	5					X
6/14/11		Dallas, TX	ER	ansportati	Bellacide	1					X
6/16/11		Burleson, TX	ER	ansportati	Diesel	1					X
7/11/11		Cleburne, TX	ER	Facility	HCL	1					X
7/12/11		Fort Worth, TX	ER	Facility	Ethanol	7.5					X
7/14/11		Flower Mound, TX	ER	Facility	Salt Water	400		X			X
7/14/11		McKinney, TX	ER	Facility	Mineral Oil	2		X			X
7/18/11		Montague Co., TX	ER	Facility	Diesel	5			X		X
7/23/11		Rhome, TX	ER	Facility	Mineral Oil	1					X
7/27/11		Balch Springs, TX	ER	ansportati	Diesel	1.5					X
7/29/11		Irving, TX	ER	ansportati	Resin	2					X
8/1/11		Colorado City, TX	ER	Facility	Crude Oil	40.5					X
8/2/11		Fort Worth, TX	ER	ansportati	Diesel	1.5		X	X		X
8/4/11		Fort Worth, TX	ER	ansportati	Diesel	2.3					X
8/23/11		Burleson, TX	ER	Facility	Flam Liquid	13					X
8/26/11		Fort Worth, TX	ER	ansportati	Diesel	4					X

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9/15/11	[redacted]	Dallas, TX	ER	Facility	oil/water	1.5		X			X
9/21/11		Lone Oak, TX	ER	ransportati	Diesel	1					X
9/29/11		Fort Worth, TX	ER	ransportati	Hydraulic Oil	4			X		X
10/14/11		White Settlement	ER	ransportati	Friction Reducer	1.5					X
10/24/11		Arlington, TX	ER	ransportati	Diesel	1			X		X
11/7/11		Bedford, TX	ER	Facility	Water/Tar	1		X	X		X
11/25/11		Arlington, TX	ER	ransportati	Diesel	2.5					X
11/26/11		Fort Worth, TX	ER	ransportati	Diesel	2					X
12/1/11		Stroud, OK	Spill Dril	Facility	Crude Oil	5100					
12/7/11		Dallas, TX	ER	ransportati	Resin	4					X
12/11/11		Fort Worth, TX	ER	ransportati	Diesel	2					X
12/14/11		Fort Worth, TX	Spill Dril	Rail Car	Ethanol	51,000		X	X	X	X

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TAS ENVIRONMENTAL SERVICES, LP

2011 - PREP Report

Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
1/3/11	[redacted]	Sherdian, AR		Transport	diesel fuel	1			X		X
1/10/11		Shreveport, LA		Transport	diesel fuel	1					X
1/17/11		Prescott,AR		Transport	diesel fuel	1		X	X		X
1/17/11		Frierson, LA		Transport	hydraulic oil	1					X
1/19/11		Natichitoches, LA		Transport	diesel fuel	2.5			X		X
1/21/11		Shreveport, LA		Transport	motor oil	95		X	X		X
1/23/11		Mansfield, LA		Facility	XW-14	2.5					X
1/28/11		Frierson, LA		Facility	Saltwater	250			X		X
1/31/11		Shreveport, LA		Transport	diesel fuel	1					X
2/3/11		Keatchi, LA		Transport	drilling mud	50		X			X
2/8/11		LR,AR		Transport	diesel fuel	1					X
2/8/11		Jefferson,TX		Transport	diesel fuel	1			X		X
2/8/11		Shreveport, LA		Transport	motor oil	95		X	X		X
2/10/11		Converse, LA		Facility	gel spill	3		X	X		X
2/11/11		Texarkana,AR		Transport	Process oil	0.5		X	X		X
2/16/11		Hope,AR		Transport	diesel fuel	2			X		X
2/17/11		Pine Bluff, AR		Facility	cutting oil	167		X			X
2/19/11		Benson, LA		Transport	Oil based drilling mud	50		X	X		X
2/21/11		Homer, LA		Transport	Saltwater	50					X
2/21/11		Frierson, LA		Transport	hydraulic oil	1					X
2/25/11		Benton, AR		Transport	gasoline	48			X		X
2/25/11		Frierson, LA		Facility	Saltwater	250			X		X
2/28/11		Mansfield, LA		Transport	XW-14	2.5					X
3/1/11		Natichitoches, LA		Transport	diesel fuel	2.5			X		X
3/4/11		Pangburn, AR		Facility	friction reducet	8		X			X
3/4/11		Converse, LA		Transport	gel spill	3		X	X		X
3/8/11		Texarkana,TX		Transport	gasoline	7		X	X		X
3/8/11		Logansport, LA		Transport	diesel & oil			X	X		X
3/11/11		Hope,AR		Transport	diesel fuel	1.5			X		X
3/11/11		Homer, LA		Facility	Saltwater	50					X
3/14/11		Frierson, LA		Transport	diesel & oil				X		X
3/15/11		Winfield,TX		Transport	diesel fuel	3.3			X		X
3/21/11		Benson, LA		Transport	Oil based drilling mud	50		X	X		X
4/9/11		New Boston,TX		Transport	diesel fuel	2			X		X

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4/9/11		Coushatta, LA		Transport	diesel fuel	2.5			X		X
4/14/11		Okolona, AR		ER	motor oil	3.5		X	X		X
4/22/11		Hooks,TX		Transport	diesel fuel	1			X		X
4/26/11		Shreveport, LA		Transport	Liquid Asphalt	60					X
5/1/11		Carthage, TX		Transport	diesel fuel	1			X		X
5/2/11		Shreveport, LA		Transport	diesel fuel	1.5			X		X
5/4/11		Mansfield, LA		Facility	Amine	35		X	X		X
5/6/11		Mount Vernon,TX		Facility	hydraulic oil	1			X		X
5/12/11		Longview, TX		Equip.Roll O	hydraulic oil	1			X		X
5/20/11		Kickapoo, LA		Transport	Caustic	7.5					X
5/21/11		Mandeville,AR		Transport	diesel fuel	2.5			X		X
5/24/11		Logansport, LA		Transport	Cross-link gel	80					X
6/1/11		Red Hill,TX		Transport	diesel fuel	3			X		X
6/4/11		Boswell,OK		Equip.Roll O	diesel fuel	1			X		X
6/6/11		Hope,AR		Transport	motor oil	1		X	X		X
6/7/11		Domino,TX	Boom D	Facility					X		X
6/7/11		Ringgold, LA		Transport	drilling mud	2					X
6/9/11		Shreveport, LA		Transport	Liquid Asphalt	60					X
6/10/11		Serapta, LA		Facility	Saltwater	150		X			X
6/16/11		Mooringsport, LA		Facility	crude oil	2.5					X
6/16/11		Mansfield, LA		Transport	Amine	35		X	X		X
6/17/11		Kickapoo, LA		Transport	Caustic	7.5					X
6/23/11		Shreveport, LA		Transport	diesel fuel	1.5			X		X
6/23/11		Serapta, LA		Facility	Saltwater	150		X			X
6/26/11		San Augustine, TX		Transport	diesel fuel	2			X		X
6/27/11		Logansport, LA		Facility	Cross-link gel	80					X
7/1/11		Coushatta, LA		Transport	diesel fuel	2.5			X		X
7/13/11		Russellville, AR		Facility	cooking oil	12			X		X
7/15/11		Mena,AR		Transport	diesel fuel	2			X		X
7/18/11		Keatchi, LA		Facility	drilling mud	50		X			X
7/27/11		Mooringsport, LA		Facility	crude oil	2.5					X
7/29/11		San Augustine, TX		Remediatio	raw sewage	80		X	X	X	X
8/5/11		Clinton, AR		Facility	hydraulic oil	2		X			X
8/8/11		Mooringsport, LA		Facility	crude oil	2					X
8/11/11		Hot Springs, AR		Transport	Jet A Fuel	3.5			X		X
8/13/11		Zwolie, LA		Transport	diesel fuel	1					X
8/13/11		Zwolie, LA		Transport	diesel fuel	1					X
8/30/11		Ringgold, LA		Transport	Saltwater	120			X		X

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8/30/11	[redacted]	Ringgold, LA		Facility	Saltwater	120			X		X
9/7/11		Ringgold, LA		Facility	drilling mud	2					X
9/9/11		Alexander, AR		Transport	diesel fuel	1					X
9/9/11		Shreveport, LA		Facility	Triazene	5					X
9/9/11		Shreveport, LA		Facility	Triazene	5					X
9/12/11		Frierson, LA		Transport	coolant & motor oil	2			X		X
9/12/11		Frierson, LA		Transport	coolant & motor oil	2			X		X
9/16/11		Sheridan, AR		Transport	diesel fuel	2.3		X			X
9/26/11		Morrilton, AR		Transport	solvent	2					X
9/30/11		Shreveport, LA		Transport	diesel fuel	2					X
9/30/11		Mooringsport, LA		Facility	crude oil	2					X
9/30/11		Shreveport, LA		Transport	diesel fuel	2					X
10/10/11		Bossier City, LA		Facility	diesel fuel	2					X
10/10/11		Bossier City, LA		Facility	diesel fuel	2					X
10/11/11		Kickapoo, LA		Transport	drilling mud	45		X			X
10/11/11		Bossier City, LA		Facility	waste fuel	6					X
10/11/11		Kickapoo, LA		Transport	drilling mud	45		X			X
10/11/11		Bossier City, LA		Facility	waste fuel	6					X
10/22/11		Fulton,AR		Transport	diesel fuel	1			X		X
10/25/11		Texarkana,AR		Transport	diesel fuel	1			X		X
10/26/11		Sheridan, AR		Transport	diesel fuel	2			X		X
10/28/11		Sheridan, AR		Transport	diesel fuel	1					X
11/14/11		Diana, TX		Facility	mineral oil	2			X		X
11/29/11		Shreveport, LA		Transport	diesel fuel	1					X
11/29/11		Shreveport, LA		Transport	diesel fuel	1					X
12/5/11		Bloomburg,TX		Transport	diesel fuel	2			X		X
12/16/11		Texarkana,AR		Transport	diesel fuel	2			X		X

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Boom Type Codes		End Connector Codes	
F	Fence	ASTM	ASTM Std (D962-86)
FR	Fire	BOLT	Bolt Connector
PI	Inflatable (Press)	HP	Hinge & Pin
SI	Inflatable (Self)	Z	Quick-Connect Z
MR	Marsh (Upper air	RC	Raised Channel
	chamber with lower	SNAV	Slide (US Navy)
	water chamber)	SLOT	Slotted Tube
R	Round	US1	Universal Slide Type 1
WB	Weir Boom	US2	Universal Slide Type 2
OT	Other	OT	Other

BOOM EQUIPMENT

Name of Manufacturer	Model Number	Boom Type Code	Inventory Length (feet)	Skirt Size (inches)	Float Size (inches)	End Connector Type Code	Time to Deploy	Storage Location	Owner
ACME Products Co. Inc.	"OK Corral	R	700	12	6	Z	2	Ft. Worth	TAS
ACME Products Co. Inc.	"OK Corral	R	2500	6	6	Z	2	Ft. Worth	TAS
ACME Products Co. Inc.	"Super Mini"	R	425	4	2.5	BOLT	0.5	Ft. Worth	TAS
ACME Products Co. Inc.	"OK Corral	R	500	6	6	Z	2	Dallas	TAS
ACME Products Co. Inc.	"Super Mini"	R	100	4	2.5	BOLT	0.5	Dallas	TAS
ACME Products Co. Inc.	"OK Corral	R	400	12	6	Z	2	Dallas	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Communications Type Codes			
AF	Aviation Frequency	**MF**	Marine Frequency
CP	Cellular Phone	**PAG**	Pager
COM	Command Post	**PHH**	Portable Hand Held
MOD	Computer w/modem	**SSB**	Single Side Band
FAX	Facsimile	**TP**	Telephone
FBS	Fixed Base Station	**OT**	Other

COMMUNICATIONS EQUIPMENT

Name of Manufacturer	Model Number	Comm. Type	# of Units	Frequency	Band	Range (miles)	Field Tunable		Storage Location	Owner
							Yes	No		
Verizon		PTT	20					X	Ft. Worth	TAS
Verizon		PTT	10					X	Dallas	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

HEAVY EQUIPMENT / RESPONSE VEHICLES

Name of Manufacturer	Heavy Equipment / Response Vehicles	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Nissan	5000 lb Forklift	1		X	Ft. Worth	TAS
Kenworth (37)	22 ft Emergency Response Bobtail	1		X	Ft. Worth	TAS
Ford (293) Lift Gate	P/U Truck / 1 Ton - Emergency Response	1		X	Ft. Worth	TAS
Ford (276)	P/U Truck / 1 Ton - Emergency Response	1		X	Ft. Worth	TAS
Ford 550 (304)	P/U Truck / F-550 Emergency Response	1		X	Ft. Worth	TAS
Chevrolet (310)	4 X 4 P/U Truck / 1 Ton - Emergency Response	1		X	Ft. Worth	TAS
Chevrolet (300, 317)	P/U Truck / 1 Ton - Emergency Response	2		X	Ft. Worth	TAS
Ford (288)	4 x 4 P/U Truck / 1 Ton - Emergency Response	1		X	Ft. Worth	TAS
Chevrolet (302,314)	4 x 4 - 3/4 Ton - Emergency Response	2		X	Ft. Worth	TAS
Ford (509)	3/4 Ton - Emergency Response	1		X	Ft. Worth	TAS
Kenworth (36,40,41,)	Tractor Truck - Rolloff / Vac Multi-Purpose	3		X	Ft. Worth	TAS
Kenworth (46)	Rolloff Truck - Bobtail	2		X	Ft. Worth	TAS
International (42)	Tractor Truck - Rolloff / Vac Multi-Purpose	1		X	Ft. Worth	TAS
ESP / Dragon (700)	Rolloff Trailer, Double Hauler	1		X	Ft. Worth	TAS
Dragon (702)	Rolloff Trailer, Single Hauler	2		X	Ft. Worth	TAS
Modern Mfg (484)	22 ft GN Trailer, Boat, 3 Deck	1		X	Ft. Worth	TAS
C & S Trailer (514)	16 ft Flatbed Trailer - Utility	1		X	Ft. Worth	TAS
Wells Cargo (506)	16 ft Emergency Response Trailer	1		X	Ft. Worth	TAS
Sooner (408)	28 ft. GN Emergency Response Trailer / Command	1		X	Ft. Worth	TAS
Alcota 3500 psi (552)	16 ft Trailer - Pressure Washer Trl - Heated	1		X	Ft. Worth	TAS
C & S Trailer (535)	14 ft Trailer - Transfer Trailer	1		X	Ft. Worth	TAS
C & S Trailer (569)	30 ft. GN Flatbed Trailer - Utility	1		X	Ft. Worth	TAS
Breco	Rolloff Box - 20yd	22		X	Ft. Worth	TAS
Breco	Rolloff Box - 25yd	8		X	Ft. Worth	TAS
V.E. Enterprises	10,000 Gallon Frac Tank	1		X	Ft. Worth	TAS
Cat 257B	Skid Steer Loader	1		X	Ft. Worth	TAS
Cat 307 Trac Excavator	Excavator	1		X	Ft. Worth	TAS

PHMSA 00002869

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2010

HEAVY EQUIPMENT / RESPONSE VEHICLES

Name of Manufacturer	Heavy Equipment / Response Vehicles	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
C & S Trailer (552)	16 ft GN Tilt Trailer	1		X	Ft. Worth	TAS
International (45)	Command - RV	1		X	Ft. Worth	TAS
Polaris (549)	8 ft Trailer	1		X	Ft. Worth	TAS
Dragon	Vacuum Box - 20 yard	2		X	Ft. Worth	TAS
Polaris	Single - side x side, Ranger 800	2		X	Ft. Worth	TAS
Polaris	Double - side x side, Ranger 800	1		X	Ft. Worth	TAS
Polaris	Sportsman 500	1		X	Ft. Worth	TAS
Polaris	Sportsman	1		X	Ft. Worth	TAS
C & S Trailer (400, 401, 402)	4 wheel Trailer	3		X	Ft. Worth	TAS
C & S Trailer (553)	20 ft. Gooseneck Flatbeed	1		X	Ft. Worth	TAS
C & S Trailer (579)	24 ft. Booat / Boom Trailer	1		X	Ft. Worth	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

HEAVY EQUIPMENT / RESPONSE VEHICLES

Name of Manufacturer	Heavy Equipment / Response Vehicles	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Ford (261)	P/U Truck / 1 Ton - Emergency Response	1		X	Dallas	TAS
Chevrolet (307)	4 x 4 - 3/4 Ton - Emergency Response	1		X	Dallas	TAS
Chevrolet (313)	P/U Truck / 1 Ton - Emergency Response	1		X	Dallas	TAS
Chevrolet (319)	P/U Truck / 3/4 Ton - Emergency Response	1		X	Dallas	TAS
C & S Trailer - Pace (551)	28 ft Trailer - Emergency Response - Gooseneck	1		X	Dallas	TAS
International (513)	Emergency Response Bobtail	1		X	Dallas	TAS
C & S Trailer (539)	16 ft GN Flatbed Trailer - Utility	1		X	Dallas	TAS
Alkoda 2500 psi (548)	14 ft Trailer - Pressure Washer Trl - Heated	1		X	Dallas	TAS
N/A (485)	Boat Trailer	1		X	Dallas	TAS
Nissan	5000 lb Forklift	4		X	Dallas	TAS
C & S Trailer (580)	24 ft. Gooseneck Boom / Boat Trailer	1		X	Dallas	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
QRae Systems - 4 Gas Air Monitor	(LEL,H2S,O2,CO)	2		X	Ft. Worth	TAS
QRae Systems - 4 Gas Air Monitor	(LEL,H2S,O2,CO)	2		X	Dallas	TAS
Rae Systems Photo Ionization Detector	PID	1		X	Ft. Worth	TAS
Rae Systems Photo Ionization Detector	PID	1		X	Dallas	TAS
Drager - CMS	CMS	1		X	Ft. Worth	TAS
Drager - CMS	CMS	1		X	Dallas	TAS
Arizona Instruments	Jerome Mercury Vapor Analyzer	1		X	Ft. Worth	TAS
	FID	1		X	Ft. Worth	TAS
MSA / Drager	SCBA	8		X	Ft. Worth	TAS
Scott / MSA	SCBA	9		X	Dallas	TAS
MSA / Drager	Escape Pack	6		X	Ft. Worth	TAS
DBI / SALA	Tripod with retrieveal device	1		X	Ft. Worth	TAS
DBI / SALA	Tripod with retrieveal device	2		X	Dallas	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Stihl	Chainsaw - 16 inch	2		X	Ft. Worth	TAS
Stihl	Chainsaw - 25 inch	1		X	Ft. Worth	TAS
Stihl	Chainsaw - 14 inch	2		X	Dallas	TAS
Speedaire	Portable Air Compressor	1		X	Ft. Worth	TAS
Westward	Portable Air Compressor	1		X	Ft. Worth	TAS
Westward	Portable Air Compressor	1		X	Dallas	TAS
Challenge AIR	Affixed Air Compressor	1		X	Dallas	TAS
Multiquip	10K Generator w / light tower - Transfer Trl	1		X	Ft. Worth	TAS
Multiquip	6K Generator - Command / ER Trl / P-Wash Trl	3		X	Ft. Worth	TAS
Multiquip	12K Generator - Command	1		X	Ft. Worth	TAS
Multiquip - Vanguard	10 K Generator - Truck 37	1		X	Ft. Worth	TAS
Volt	10 K Generator - Response Trailer	1		X	Dallas	TAS
Honda	6K Generator	1		X	Dallas	TAS
Multiquip	6K Generator	1		X	Dallas	TAS
Big Guy	Walk Behind Scrubber PW Attachment	1		X	Ft. Worth	TAS
Big Guy	Walk Behind Scrubber PW Attachment	1		X	Dallas	TAS
EPPS	Pressure Washer - 2500 psi (portable)	1		X	Ft. Worth	TAS
Honda	Pressure Washer - 1200 psi (portable)	1		X	Dallas	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Air Systems International	Supplied Breathing Air Machine	1		X	Ft. Worth	TAS
Air Systems International	Regulator Box - Breathing Air Machine	1		X	Ft. Worth	TAS
Air Systems International	Cool Air Box - Breathing Air Machine	1		X	Ft. Worth	TAS
Air Systems International	Coppus Ventilation Fan	2		X	Ft. Worth	TAS
Air Systems International	Coppus Ventilation Fan	1		X	Dallas	TAS
Air Systems International	1390 cfm Air Blower	1		X	Ft. Worth	TAS
Air Systems International	1390 cfm Air Blower	1		X	Dallas	TAS
	Negative Air Machine	1		X	Ft. Worth	TAS
	Negative Air Machine	1		X	Dallas	TAS
Goodall Rubber	Chemical Hose - 2 inch - Durodyne	200ft		X	Ft. Worth	TAS
Goodall Rubber	Chemical Hose - 2 inch - Durodyne	130ft		X	Dallas	TAS
Goodall Rubber	Petro Hose - 2 inch	800ft		X	Ft. Worth	TAS
Goodall Rubber	Petro Hose - 2 inch	100ft		X	Dallas	TAS
Goodall Rubber	Petro Hose - 3 inch	600ft		X	Ft. Worth	TAS
Fire Extinguisher	Fire Extinguisher ABC	28		X	Ft. Worth	TAS
Fire Extinguisher	Fire Extinguisher ABC	12		X	Dallas	TAS
Nilfisk	HEPA / Mercury Vacuum	1		X	Ft. Worth	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Dayton	Drum Head Vacuum	3		X	Ft. Worth	TAS
Dayton	Drum Head Vacuum	3		X	Dallas	TAS
Calgon	Carbon Filtration System	4		X	Ft. Worth	TAS
AMS	Subsurface Sampling Equipment	2		X	Ft. Worth	TAS
Homelite	Box Blower	4		X	Ft. Worth	TAS
Homelite	Box Blower	2		X	Dallas	TAS
	Portable Light Stand	3		X	Ft. Worth	TAS
	Portable Light Stand	3		X	Dallas	TAS
Mercury	Boat Motor - 25 hp Outboard	1		X	Ft. Worth	TAS
Mercury	Boat Motor - 25 hp Outboard	1		X	Dallas	TAS
	Pirojue Boat - 10 ft - Fiberglass	2		X	Ft. Worth	TAS
	Pirojue Boat - 10 ft - Fiberglass	1		X	Dallas	TAS
Stihl & Homelite	Weedeater	2		X	Ft. Worth	TAS
Ryobo & Homelite	Weedeater	2		X	Dallas	TAS

PHMSA 000028705

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
	Confined Space Box - Various CSR Equipment	2		X	Ft. Worth	TAS
	Confined Space Box - Various CSR Equipment	3		X	Dallas	TAS
	Pallet Jack - 5000 lb	1		X	Ft. Worth	TAS
	Pallet Jack - 5000 lb	1		X	Dallas	TAS
Minuteman	HEPA Vacuum	2		X	Ft. Worth	TAS
Nilfisk	HEPA Vacuum	1		X	Dallas	TAS
Minuteman	HEPA Vacuum	2		X	Dallas	TAS
Rigid	Wet / Dry Vacuum	2		X	Ft. Worth	TAS
Rigid	Wet / Dry Vacuum	2		X	Dallas	TAS
	Bunker Gear	6 sets		X	Ft. Worth	TAS
	Bunker Gear	4 sets		X	Dallas	TAS
MSA	Respirator	25		X	Ft. Worth	TAS
MSA	Respirator	18		X	Dallas	TAS
Rigid	Wet / Dry Vacuum	2		X	Ft. Worth	TAS
Rigid	Wet / Dry Vacuum	2		X	Ft. Worth	TAS
Rigid	Wet / Dry Vacuum	2		X	Ft. Worth	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

MISCELLANEOUS EQUIPMENT

Name of Manufacturer	Equipment Type	# of Units	Wide Load Permit Needed		Storage Location	Owner
			Yes	No		
Dallas Steel Drum	Drum Overpack, 85 gal steel	20		X	Ft. Worth	TAS
Dallas Steel Drum	Drum Overpack, 85 gal steel	20		X	Dallas	TAS
Kappler	Personal Protective Equipment, Level A Suit	10		X	Ft. Worth	TAS
Kappler	Personal Protective Equipment, Level A Suit	3		X	Dallas	TAS

PHMSA 000028707

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Design Type Codes		Drive Codes	
BF	Baffle System	D	Diesel
B	Barge	E	Electric
CF	Coalescing Filter System	G	Gasoline
A	Emulsifier Additive	H	Hydraulic
FT	Frac Tank	P	Pneumatic
OT	Other	OT	Other

SUB-CONTRACTOR FRAC AND R/O BOX EQUIPMENT

Name of Manufacturer	Model Number	Design Type Code	Drive Type Code	# of Units	Production Rate (gpm)	Storage Location	Owner
Baker Tanks - Houston	Frac Tank	FT		165		Houston	Baker Tanks
Baker Tanks - Houston	Roll off Box			400		Houston	Baker Tanks
Baker Tanks - Freeport	Frac Tank	FT		100		Freeport	Baker Tanks
Baker Tanks - Freeport	Roll off Box			115		Freeport	Baker Tanks
Baker Tanks - Corpus Christi	Frac Tank	FT		70		Corpus Christi	Baker Tanks
Baker Tanks - Corpus Christi	Roll off Box			100		Corpus Christi	Baker Tanks
Baker Tanks - Beaumont	Frac Tank	FT		25		Beaumont	Baker Tanks
Baker Tanks - Beaumont	Roll off Box			100		Beaumont	Baker Tanks
Baker Tanks - Kilgore	Frac Tank	FT		175		Kilgore	Baker Tanks
Baker Tanks - Kilgore	Roll off Box			100		Kilgore	Baker Tanks
Baker Tanks - DFW	Frac Tank	FT		30		DFW	Baker Tanks
Baker Tanks - DFW	Roll off Box			50		DFW	Baker Tanks
Cima Transportation	Roll off Box			35		DFW	Cima Transportation
FCC - DFW	Frac Tank	FT		4		DFW	FCC
FCC - DFW	Roll off Box			5		DFW	FCC
FCC- San Antonio	Frac Tank	FT		8		San Antonio	FCC
Evergreen Tanks	Frac Tank	FT		50		Bossier City	ETS
Evergreen Tanks	Roll off Box			100		Bossier City	ETS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Pump Codes		Drive Codes	
A	Auger/Screw	D	Diesel
C	Fire	E	Electric
P	Parastolic	G	Gasoline
R	Reciprocating	H	Hydraulic
I	Rotary/Flexible Impeller	P	Pneumatic
OT	Other	OT	Other

PUMP EQUIPMENT

Name of Manufacturer	Model Number	Pump Type Code	Drive Type Code	Suction/Disch. Size (inches)	Mfg. Pump Rate (gpm)	Qty.	Storage Location	Owner
Multi-Quip	QP40TH	OT	G	4	350	1	Ft. Worth	TAS
Wilden	M761870 - M15	OT	P	2	250	1	Ft. Worth	TAS
Honda	WT30X	OT	G	3	250	1	Ft. Worth	TAS
Multi-Quip	EY-15	OT	G	2	180	1	Ft. Worth	TAS
ARO Ingersollrand	M-8 Poly	OT	P	2	180	1	Ft. Worth	TAS
Multi-Quip	QP-202TH	OT	G	3	200	1	Ft. Worth	TAS
Yanmar	L48AE-DEB	OT	D	2	180	1	Ft. Worth	TAS
ARO Ingersollrand	M-8 SS	OT	P	2	180	1	Ft. Worth	TAS
Multi-Quip	GX160	OT	G	2	180	2	Ft. Worth	TAS
ARO Ingersollrand	M-1	OT	P	1	35	3	Ft. Worth	TAS
Tecumseh	Floating Pumps	OT	G	2	180	2	Ft. Worth	TAS

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Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Pump Codes		Drive Codes	
A	Auger/Screw	D	Diesel
C	Fire	E	Electric
P	Parastolic	G	Gasoline
R	Reciprocating	H	Hydraulic
I	Rotary/Flexible Impeller	P	Pneumatic
OT	Other	OT	Other

PUMP EQUIPMENT

Name of Manufacturer	Model Number	Pump Type Code	Drive Type Code	Suction/Disch. Size (inches)	Mfg. Pump Rate (gpm)	Qty.	Storage Location	Owner
Multi-Quip	QP205SH	OT	G	2	180	1	Dallas	TAS
Multi-Quip	QP202TH	OT	G	3	250	1	Dallas	TAS
ARO Ingersollrand	M-8 SS	OT	P	2	180	1	Dallas	TAS
ARO Ingersollrand (1 Steel/1 Poly/1 Alu)	M-1	OT	P	1	35	3	Dallas	TAS
ARO Ingersollrand (Stainless Steel)	M-1 / SS	OT	P	1	35	1	Dallas	TAS

PHMSA 00002871

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

System Type Codes		Drive Codes	
PU	Portable Vacuum Pump Units	D	Diesel
SS	Super Sucker	E	Electric
VT	Vacuum Truck	G	Gasoline
OT	Other	H	Hydraulic
		P	Pneumatic
		OT	Other

VACUUM SYSTEM EQUIPMENT

Name of Manufacturer	Model Number	System Type Code	Drive Type Code	Suction (inches)	Number of Units	Mfg. Recovery Rate (gpm)	Storage Capacity (gallon)	Hose Invent. (feet)	Storage Location	Owner
PressVac Kenworth (CS)	53	VT	D	28	1	200	3000	150	Ft. Worth	TAS
Vacuum Trailer (CS)	701	VT	D	28	1	200	5000	150	Ft. Worth	TAS
IBEX Vac Trailer-Stainless Steel (SS)	703	VT	D	28	1	200	5500	150	Ft. Worth	TAS
PressVac / Kenworth - 2005 (SS)	43	VT	D	28	1	200	3000	150	Ft. Worth	TAS

PHMSA 00002871

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Response Boat Type Codes		Transporation Method Codes	
BAY	Bay Waters	NT	Normal Trailer
JB	Jon Boat	WO	Water Only
LFB	Large Flat Bottom	WL	Wideload Trailer
OFF	Offshore	OT	Other
PRO	Protected Waters		
TC	Towing Capable		
OT	Other		

RESPONSE BOATS

Name of Manufacturer	Model Number	Boat Type Code	Horse Power	Normal Crew Size	Length/ Beam	Draft Limit	Number of Boats	Transport Method Code	Storage Location	Owner
Alumaweld	1650	JB	30/25	2	16'6'	1'	2	NT	Ft. Worth	TAS
Alumaweld	1650	JB	25	2	16'6'	1'	1	NT	Dallas	TAS

PHMSA 00002712

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Skimmer Type Codes			
FS	Floating Suction	**HIP**	Hydrodynamic Inclined Plane
IV	Induces Vortex	**OB**	Oleophilic Belt
OD	Oleophilic Disk	**OR**	Oleophilic Rod
PW	Paddle-Wheel	**SK**	Sock
W	Weir	**OT**	Other

SKIMMER EQUIPMENT

Name of Manufacturer	Model Number	Skimmer Type Codes	# of Units	Mfg. Recovery Rate (gpm)	Hose Size Suction/ Discharge (inches)	Time to Deploy	Storage Location	Owner
ACME Products Co., Inc.	FS400ASK-39T	W	1	275	3	1	Ft. Worth	TAS
Douglas Engineering	4200SH Skim Pack	FS	2	68	2	0.5	Ft. Worth	TAS
Elastec	Pneumatic Roll Skimmers		2	180	2	0.5	Ft. Worth	TAS
Wacker	Single Diaph Skimmer Pump		1		3	0.5	Ft. Worth	TAS
Douglas Engineering	4200SH Skim Pack	FS	1	68	2	0.5	Dallas	TAS

PHMSA 00002713

Corporate Operations	Response Equipment Schedule	Schedule Rev. 01/2012

Sorbent Type Codes		Composition Codes	
B	Boom	M	Mineral
PAD	Pad	NO	Natural Organic
PT	Particulate	S	Synthetic
ST	Sheet	OT	Other
SW	Sweep		
OT	Other		

Name of Manufacturer	Model Number	Sorbent Type Code	Composition Type Code	Normal Inventory	Special Appl. Equip. Needed		Special Rcvg. Equip. Needed		Storage Location	Owner
					Yes	No	Yes	No		
Int'l Permalite Corp.	TAS-DICA18	PT	MS	50		X		X	Ft. Worth	TAS
Int'l Permalite Corp.	TAS-DICA18	PT	MS	30		X		X	Dallas	TAS
Complete Env	TAS-P100	PAD	S	500		X		X	Ft. Worth	TAS
Complete Env	TAS-P100	PAD	S	25		X		X	Dallas	TAS
Complete Env	TAS-B510	B	S	200		X		X	Ft. Worth	TAS
Complete Env	TAS-B510	B	S	20		X		X	Dallas	TAS
Complete Env	TAS-B810	B	S	200		X		X	Ft. Worth	TAS
Complete Env	TAS-B810	B	S	20		X		X	Dallas	TAS

PHMSA 00002871

INTERMITTENT SERVICES AGREEMENT

Date: June 13, 2005
Agreement Number: 0500279-A

Contractor: TAS Environmental Services, L.P.

PARTIES
It is hereby agreed between:

(i) Flint Hills Resources, L.P. Koch Pipeline Company, L.P., (such company or companies being collectively referred to hereinafter as "Company"), whose business address is P.O. Box 2256, Wichita, Kansas 67201, and

(ii) TAS Environmental Services, L.P. (such company being referred to hereinafter as "Contractor"), whose business address is 3929 California Parkway, Ft. Worth, TX 76119,

that Contractor will, as an independent contractor, furnish all necessary supervision, labor, materials and equipment (other than specified labor, materials and equipment furnished by Company) and shall perform work for Company as requested by Company from time to time during the term of this agreement in conformity with the terms of this agreement.

SPECIAL CONDITIONS:

1. Contractor represents and warrants that it is classified by the United States Coast Guard as a Class: A,B,C,D, and/or E <Applied For>_____ Oil Spill Response Organization (OSRO) for i.e. Great Lakes, inland, rivers and canals, or oceans <Applied For>_____ environment(s) in the following geographic location(s) Fort Worth, TX; San Antonio, TX, Dallas, TX, Austin, TX. Attached hereto as Schedule 1 is a copy of Contractor's current OSRO Classification Letter. If Contractor is not OSRO classified, attach a complete list and description of all response equipment, personnel and training that will be maintained and made available by Contractor during the term of this agreement.

Upon telephone notification from Company, Contractor shall respond to any spill or release of oil or hazardous substance with the personnel and equipment specified by Company. Company may identify Contractor as an Oil Spill Response Organization in any facility response plan developed pursuant to the Federal Oil Pollution Act of 1990, or any state counterpart thereto, for any facility located in the geographic location(s) identified above. Contractor shall respond hereunder at the request of Company whether or not Company has identified Contractor in the particular facility's response plan. Contractor shall notify Company of any change in Contractor's OSRO classification [e.g. suspension or revocation or changes in class level(s), operating environment(s), or geographic location(s)] as soon as possible, but in no event more than five (5) calendar days after the effective date of such change, suspension, or revocation. If Contractor is not ORSO classified, Contractor shall notify Company within five (5) calendar days of any material change in response equipment or personnel availability and shall provide Company with an updated list and description of such resources.

Contractor shall comply with all Federal, State and local laws, rules and regulations, including but not limited to all rules and regulations promulgated and in force pursuant to the Occupational, Safety and Health Act and all HazCom, HazMat, and HazWoper requirements set forth therein. Contractor shall be solely responsible for ensuring its employees have received all certifications and training required by the Occupational, Safety and Health Act, and any and all other applicable Federal, State or local laws, rules or regulations.

Contractor shall be compensated in accordance with the attached rates marked as "Exhibit A". In the event of a conflict between the provisions contained within the main body of this agreement and a provision contained within Exhibit A, the provisions in the main body of this agreement shall control. The rates shall include, without limitation, all applicable taxes imposed by federal, state or other governments or bodies having jurisdiction.

BILLING AND PAYMENT

2. Contractor shall submit to Company's authorized representatives an itemized statement detailing charges for labor and equipment including hours, dates, the hourly charge for the labor or equipment and any charge for materials at the end of each month during which work is performed. Contractor shall furnish upon demand any records relating to the statement prior to or after payment by Company. If "Company", as defined above, includes more than one entity, Contractor agrees that each such entity will be separately, not jointly, responsible for the payment obligations hereunder as relating to work performed for such entity.

3. Payment shall be made within thirty (30) days of Company's receipt of the statement described in Paragraph 2 of this agreement. Company reserves the right to withhold payment until completion of the work and its acceptance by Company or until Contractor furnishes proof satisfactory to Company that all bills for materials and labor covering the work have been fully paid by Contractor, and that the premises upon which the work is done and any structures built, improved or added to are not subject to any material or labor liens or claims of liens. Final payment shall be made within thirty (30) days of the date of acceptance of the work by Company. Contractor and/or any subcontractor shall promptly and satisfactorily settle all liens and claims for labor performed and supplies or material furnished in connection with the work; and in the event Contractor fails or refuses to promptly and satisfactorily settle any such liens or claims, Company shall, after notifying Contractor in writing, have the right to settle such claims for the account of Contractor and deduct the amount thereof from amounts payable to Contractor. Payments made under this agreement shall not constitute full or partial acceptance of the work or any part of the work by Company.

PERFORMANCE OF WORK

4. Contractor shall rely solely upon Contractor's own examination and investigation of the surface and subsurface conditions at the site, and all local and general conditions that may affect performance of the work.

5. Unless otherwise specified, Contractor shall secure all permits and licenses necessary to the performance of the work, shall pay all fees and make all deposits pertaining thereto, and shall at Contractor's expense furnish all bonds required to perform the work, and shall submit proof thereof to Company.

6. Contractor shall perform the work:
a. In a workmanlike manner using qualified, efficient and careful workers;
b. In accord with all plans, drawings and specifications;
c. In compliance with all applicable federal, state, local and Company's safety rules and regulations;
d. In a manner to protect the work, the environment, Company's property and the property and persons of others from loss, damage or injury of any type;
e. So as not to interfere with the operations of others on the premises; and,
f. Under the supervision of an employee of Contractor.

An employee supplied by Contractor without supervision by Contractor and who is under the exclusive direction and control of Company shall be considered a borrowed servant. In all other cases, the employee shall be considered an employee of Contractor as an independent contractor. Contractor's duties to defend, indemnify, protect and hold harmless Company under Paragraph 12 of this agreement shall continue regardless of the characterization of an employee as a borrowed servant or the employee of an independent contractor.

7. Company may maintain such representatives as it deems necessary on the work site for the purpose of inspecting, testing and ensuring the satisfactory completion of the work. Company may inspect the work at any time during the progress of the work, and Contractor shall provide reasonable facilities for such inspection. If any applicable statute, regulation or order requires any part of the work to be specially tested or approved, Contractor shall give Company reasonable notice of the time and place of such testing and inspection. Company may require Contractor to correct defective work or Company may have the work corrected by others, and, in either event, Contractor shall bear the cost of such correction.

8. Unless otherwise specified, all materials shall be new and workmanship shall be of good quality. No substitutions of materials from that specified in the plans and specifications in this agreement shall be permitted unless approval is given by Company in writing.

9. Contractor guarantees the work to be performed hereunder against defects in workmanship and material that shall appear within one year following final acceptance of the work by Company, and Contractor shall promptly remedy all such defects. Contractor shall arrange for the extensions, to Company, of all additional warranties by suppliers of goods or services that are consistent with or extend or expand the terms of the above described warranty of Contractor.

10. Contractor and its employees, agents and subcontractors shall comply with all applicable laws, regulations, ordinances and other rules of federal, state and local government and political subdivisions, and of any other duly constituted authority having jurisdiction.

11. Contractor shall be responsible for, and hereby assumes all liability, whether insured or self-insured, for loss or destruction of or physical damage to the following: All tools, machinery, equipment and appliances that are owned by Contractor or loaned to or leased by Contractor by others than Company and that are not to be incorporated into the completed work; and, all personal property of Contractor's employees, whether or not such loss, destruction or damage is caused by, arises out of, or is in any way connected with the negligence of Company, its employees or agents.

INDEMNITY

12. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL DEFEND, PROTECT, INDEMNIFY AND SAVE COMPANY, ITS PARENT COMPANY, PARTNERS, SUBSIDIARIES AND ANY OTHER RELATED OR AFFILIATED ENTITIES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS AND EMPLOYEES (COLLECTIVELY REFERRED TO FOR PURPOSES OF THIS PARAGRAPH 12 AS "INDEMNITEES") HARMLESS FROM AND AGAINST ALL CLAIMS, LIABILITIES, DAMAGES, DEMANDS, LAWSUITS, CAUSES OF ACTION, STRICT LIABILITY CLAIMS, PENALTIES, FINES, ADMINISTRATIVE LAW ACTIONS AND ORDERS, EXPENSES (INCLUDING, BUT NOT LIMITED TO, ATTORNEYS' FEES) AND COSTS OF EVERY KIND AND CHARACTER (COLLECTIVELY "CLAIMS/LIABILITIES") ARISING OUT OF OR IN ANY WAY INCIDENT TO ANY OF THE WORK PERFORMED BY CONTRACTOR, ITS SUBCONTRACTORS OR THE

EMPLOYEES OF EITHER, ON ACCOUNT OF PERSONAL INJURIES, DEATH, DAMAGE TO PROPERTY, DAMAGE TO THE ENVIRONMENT, OR INFRINGEMENT OF ANY PATENT, TRADEMARK, COPYRIGHT OR OTHER PROPERTY RIGHT, REGARDLESS OF WHETHER SUCH HARM IS TO CONTRACTOR, INDEMNITEES, THE EMPLOYEES OR OFFICERS OF EITHER OR ANY OTHER PERSON OR ENTITY. THE DUTY TO DEFEND, PROTECT, INDEMNIFY AND SAVE INDEMNITEES HARMLESS REFERRED TO IN THE PRECEDING SENTENCE SHALL INCLUDE, BUT NOT BE LIMITED TO, CLAIMS/LIABILITIES THAT RESULT FROM THE COMPARATIVE, CONCURRENT OR CONTRIBUTING NEGLIGENCE OF ANY PERSON OR ENTITY INCLUDING, BUT NOT LIMITED TO, INDEMNITEES OR THEIR AGENTS, EXCEPT CONTRACTOR SHALL NOT BE LIABLE UNDER THIS PARAGRAPH 12 FOR LOSS OR DAMAGE RESULTING FROM THE SOLE (100%) NEGLIGENCE OF INDEMNITEES. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR FURTHER AGREES TO INDEMNIFY, DEFEND AND HOLD INDEMNITEES HARMLESS AGAINST THE PAYMENT OF ANY AND ALL TAXES, PENALTIES, FINES, INTEREST, LIENS OR INDEBTEDNESS OR CLAIMS AGAINST INDEMNITEES' PROPERTY OR FOR WORK PERFORMED, OR MEASURED BY THE WORK PERFORMED, GROWING OUT OF OR INCIDENT TO CONTRACTOR'S OPERATIONS UNDER THIS AGREEMENT INCLUDING, BUT NOT LIMITED TO, TAXES, PENALTIES, FINES, INTEREST, LIENS OR ENCUMBRANCES THAT RESULT FROM THE CONCURRENT OR CONTRIBUTING NEGLIGENCE OF ANY PERSON OR ENTITY, WHICH MAY INCLUDE INDEMNITEES, THEIR AGENTS, EMPLOYEES OR OFFICERS. CONTRACTOR SHALL MAINTAIN AT ITS OWN COST AND EXPENSE INSURANCE COVERING THIS INDEMNITY PROVISION. CONTRACTOR'S DUTIES UNDER THIS PARAGRAPH SURVIVE THE TERMINATION, REVOCATION, OR EXPIRATION OF THIS AGREEMENT.

INSURANCE

13. In addition to any other insurance that Contractor shall acquire under this agreement, Contractor shall maintain at its own cost and expense such insurance of the types and in the amounts as required by Company to insure all of Contractor's obligations under this agreement and that will protect Company from all claims for damages to persons and to property that may arise from any operations under this agreement or any subcontracts related to this agreement. Contractor shall maintain during the entire term of this agreement insurance policies within minimum limits of coverage all as set forth on Exhibit B, which is made a part hereof by reference. Prior to commencing work, Contractor shall require its insurer or insurance agent to supply Company a certificate of insurance in the form as set forth on Exhibit C. Such insurance shall name Company as an additional insured in accordance with the requirements of Exhibit B, with such additional insured endorsements providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them). All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs unless specifically consented to in writing by Company. The insurance coverages to be provided by Contractor under this paragraph, including but not limited to the additional insured coverage provided to Company, shall be independent of the indemnity provisions of this agreement, and are not designed solely to guarantee payment of Contractor's indemnity obligations.

GENERAL PROVISIONS

14. This agreement may not be assigned in whole or in part by Contractor without the prior written consent of Company, nor shall work under the contract be assigned to a subcontractor without the prior written consent of Company.

15. No amendment to this agreement shall be valid unless made in writing and signed by authorized representatives of both parties.

16. Company's right to require strict performance of Contractor's obligations shall not be affected in any way by prior waiver, forbearance or other course of dealing.

17. This agreement and any subsequent amendments comprise the entire agreement between Company and Contractor with respect to the subject matter hereof, and there are no agreements, understandings, conditions, or representations, oral or written, expressed or implied, that are not merged into this agreement or superseded by it.

18. Subject to any restrictions imposed by applicable laws, if Contractor has a petition in bankruptcy filed by or against it, has a receiver appointed for it, becomes insolvent, makes a general assignment for the benefit of creditors, refuses or fails to supply competent supervision or enough properly skilled people or proper material, disregards laws, rules or regulations applicable to the work, or otherwise violates any provision of this agreement, then Company shall have the right (in addition to any other rights it may have at law or in equity) to treat such as a breach of this agreement and may upon the giving of written notice terminate this agreement, terminate employment of Contractor, and take possession of the premises, all materials, tools, equipment, supplies, and appliances of any type and finish the work by whatever method Company may deem appropriate.

19. Company may require Contractor to furnish a surety bond in the full amount of and guaranteeing faithful performance of this agreement, or otherwise guaranteeing Contractor's obligations under this agreement. Such bond(s) shall be written on a form prescribed or approved by Company and shall be purchased from a source approved by Company.

20. Company shall have the right, at any reasonable time and from time to time, to audit any and all records, documents and other data pertaining to this agreement. Contractor shall cooperate in furnishing to Company all such records, documents and other data in connection with any such audit.

21. Company does not guarantee an offer of work to Contractor during the term of this agreement. Company and Contractor agree, however, that any work offered by Company to Contractor and accepted by Contractor during the term of this agreement will be performed under the terms of this agreement. Company shall not be liable in damages or otherwise, if by reason of an

act of God or public enemy, strike, lockout, boycott, picketing, riot, insurrection, fire, or any governmental order, rule, or regulation, or any ordinance Company shall be delayed in, or prevented from, furnishing any materials, equipment, facilities, services, etc., required to be furnished by it hereunder.

22. Contractor shall comply with and be subject to the most recent Substance Abuse Policy issued by Koch Industries, Inc. All employees of Contractor shall be subject to drug testing when on the premises of Company. In addition to the foregoing requirements, should Contractor perform services related to facilities regulated by the United States Department of Transportation, Contractor shall have developed and implemented, or have contracted with an organization that has developed and implemented, substance abuse policies in compliance with 41 U.S.C. 701, et seq., 49 C.F.R. Part 199 and 49 C.F.R. Part 40, if applicable; and, with respect to equal employment opportunity and affirmative action compliance, Contractor shall comply with the provisions of Section 202 of Executive Order 11246 and the rules and regulations issued pursuant to Section 201 thereof. Contractor shall provide Company with documentation demonstrating compliance with such laws upon the request of Company.

23. Contractor warrants and represents that, to the extent applicable to any activities that may be performed pursuant to this agreement by Contractor or its subcontractors, all of Contractor's employees and its subcontractors' employees have received all safety training required by law for employees working in an environment in which they may come in contact with crude oil, natural gas, natural gas liquids, refined products or hazardous materials. Contractor agrees to permit Company to inspect Contractor's records in order to assure compliance with this Paragraph 23.

24. In the event any provision herein shall be judicially interpreted or held to be void or otherwise unenforceable as written, such provision shall be deemed to be revised and modified to the extent necessary to make it legally enforceable. In any event, the remaining terms of the agreement shall be enforceable as though the void or unenforceable provision did not exist.

CONFIDENTIALITY

25. All information that Contractor acquires from Company hereunder, directly or indirectly, and all information that arises out of the Work performed hereunder, concerning such Work and/or proprietary processes involved in the Work, including without limitation, information concerning Company's current and future business plans, information relating to Company's operations, and other Company-furnished information and know-how relating to the Work shall be deemed Company's "Proprietary Information." Company's Proprietary Information shall be held in strictest confidence by Contractor and shall be used solely for purposes of performing such Services. The obligations under this Paragraph shall survive completion of such work/services and termination of this Agreement.

TERM

26. This agreement shall be effective as of the date first above written and shall continue for a one-year period following that date. At the end of the initial one-year period, the agreement shall continue until replaced by a subsequent agreement or otherwise revoked by written notice by either party.

SO AGREED, EXECUTED ON THE DATES INDICATED BELOW, BUT EFFECTIVE AS OF THE DATE FIRST ABOVE WRITTEN:

COMPANY
Flint Hills Resources, LP
Koch Pipeline Company, L.P.

By Bob O'Hair
Bob O'Hair
(Printed Name)
Title Vice President
Date 6-22-05

CONTRACTOR
TAS Environmental Services, L.P.

Federal ID Number: 20-1454928

By
J Salter
(Printed Name)
Title President of GP
Date 6.13.5

Exhibit B
Insurance Requirements
Supplement to Intermittent Services Agreement 0500279-A

1.0 With respect to Contractor's performance of the agreement to which this exhibit is attached (referred to hereinafter as the "agreement"), Contractor shall maintain the following insurance:

1.1 **Worker's Compensation and Employers' Liability Insurance**, as prescribed by applicable law including insurance covering liability under the Longshoremen's and Harbor Workers' Compensation Act, the Merchant Marine Act of 1920 (Jones Act) and the Outer Continental Shelf Land Act, if applicable. Coverage will include an Alternate Employer Endorsement (WC 00 03 01) naming Company as an Alternate Employer. Contractor shall require its insurer or insurance agent to provide, as requested by Company, Contractor's Experience Modification Rating (EMR).

1.2 **Commercial General Liability Insurance**, which shall be at least as broad as the coverage provided by a standard form Commercial General Liability Policy (ISO CG 00 01 01 96, with standard exclusions "a" through "n"; ISO forms CG 00 01 07 98 or CG 00 01 10 01, with standard exclusions "a" through "o", with a minimum combined single limit of **$3,000,000** per occurrence for Bodily injury and Property Damage and a **$3,000,000** aggregate each for the general policy and the Products/Completed Operations hazard. This insurance must include the following features:

1.2.1 If work to be performed by Contractor includes construction or demolition operations within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing, and if Contractor's commercial general liability insurance policy is form ISO CG 00 01 11 88, then such policy will include a Railroad's Contractual Liability Endorsement CG 24 17 10 93.

1.2.2 Contractual Liability coverage.

1.2.3 Products and Completed operations.

1.2.4 Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of the ground (XCU coverage), if applicable.

1.2.5 Coverage will include one of the following endorsements naming Company as an additional insured:

(i) Additional Insured - Owners, Lessees or Contractors (Form B) Endorsement (CG 20 10 10 93); or
(ii) Additional Insured - Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 03 97); or
(iii) Additional Insured – Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 10 01).

1.3 **Automobile Liability Insurance**, covering all owned, non owned, hired and leased vehicles with a minimum combined single limit for Bodily Injury and Property Damage of **$3,000,000** per accident. This insurance must include contractual liability coverage.

1.4 **Aircraft Liability Insurance** - If any operations require the use of aircraft, including helicopters, Contractor shall maintain or require owners of such aircraft to maintain Aircraft Liability Insurance with a combined single limit of not less than **$5,000,000** for bodily injury and property damage (including, passenger) liability.

1.5 **Hull and Machinery Insurance** covering vessels or barges owned or bareboat chartered by Contractor and used by Contractor in the performance of the agreement. Such vessels shall be insured for no less than the fair market value of such vessel or barge. Coverage shall include **Collision Liability Insurance** with limits no less than **$5,000,000.**

1.6 **Protection and Indemnity Insurance** - If marine work is to be performed under the agreement, Contractor shall maintain Protection and Indemnity Insurance, including coverage for injuries to or death of masters, mates and crews of vessels used in the performance of the agreement. The limits of liability of such insurance shall not be less than **$5,000,000** per occurrence. Contractor may cover its obligation for loss of life or bodily injury to the crew of the vessel by extension of the Workers Compensation Insurance 1.1 above (Jones Act). Coverage shall also include pollution liability for loss as specified in the requirements of applicable United States Federal and State Laws. All certificates evidencing financial responsibility shall be current and carried on board.

1.7 **Railroad Protective Liability** - If required by Company, Contractor shall maintain Railroad Protective Liability Insurance naming the railroad as the insured with a limit for bodily injury and property damage liability of **$2,000,000** per occurrence, **$6,000,000** aggregate. The original of said policy shall be furnished to railroad prior to any construction or entry upon the railroad easement premises by Contractor.

1.8 **Umbrella / Excess Insurance** - The limits specified in 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 above may be satisfied with a combination of primary and Umbrella/Excess Insurance, such policies naming Company as additional insured.

1.9 **Pollution Liability Insurance - If required by Company,** Contractor shall provide and maintain, and ensure that all of Contractor's subcontractors provide and maintain, the following insurances: Contractor's Pollution Liability Insurance with coverage for (a.) bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death; (b.) property damage, including physical injury to or destruction of tangible property, including the resulting loss of use thereof, clean up costs, and the loss of use of tangible property that has not been physically injured or destroyed; (c.) defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; for losses caused by pollution conditions that arise from the operations of the Contractor performed under this Agreement. If such policy is written on a claims-made basis, the Contractor warrants that continuous coverage will be maintained, or an extended coverage period will be exercised for a period of 12 months, beginning from the time the work under this Agreement is completed. Contractor agrees to name Company as an additional insured and to furnish insurance certificates showing the Contractor's compliance with this Paragraph 1.9. Contractor also agrees to notify Company 30 days in advance of any cancellation or change to the insurance coverages shown on the certificate. Contractor shall maintain limits no less than Pollution Legal Liability: **$5,000,000 per loss** and **$5,000,000 annual aggregate.**

Note: Coverage for Contractor's Pollution Liability Insurance can be satisfied by the addition of a time element buyback endorsement on the General Liability Policy. The coverage must be as broad as the coverage described above, with a minimum requirement for discovery of 7 days and a minimum reporting period of 60 days.

Contractor shall, before commencing work, provide Company with a certificate of insurance satisfactory to Company of the insurance coverages set forth above.

2.0 **Policy Endorsements**

2.1 The above insurance shall include a requirement that the insurer provide Company with thirty (30) days' written notice prior to the effective date of any cancellation or material change of the insurance.

2.2 The insurance specified in Sections 1.2, 1.4, 1.5, 1.6, 1.8 and 1.9 hereof, as well as any Excess/Umbrella insurance coverage available to Contractor, shall:

i) Name Company as an additional insured with respect to work performed for Company, with such additional insured endorsement providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them);
ii) Be primary to and not in excess of or contributory with any other insurance available to Company; and
iii) Acknowledge that in no event shall Company's insurance, including but not limited to any SIR or deductible, be considered "other insurance" under the terms of Contractor's policies .

3.0 **Evidence of Insurance** - Contractor shall, before commencing work, provide Company with a certificate (see attached **Exhibit C**) satisfactory to Company of the insurance coverages and endorsements set forth in Sections 1.0 and 2.0 above. If requested by Company, Contractor shall provide Company with certified copies of all policies.

4.0 **Waiver of Subrogation**

4.1 Contractor, on behalf of its insurers, waives any right of subrogation that such insurers may have against Company arising out of this agreement.

4.2 The insurance specified in Section 1.1 hereof shall contain a waiver of the right of subrogation against Company and an assignment of statutory lien, if applicable.

4.3 Any physical damage insurance carried by Contractor on construction equipment, tools, temporary structures and supplies owned or used by Contractor shall provide a waiver of the right of subrogation against Company.

5.0 All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs, unless specifically consented to in writing by Company.

6.0 The obligation to carry the insurance required by this Exhibit shall not limit or modify in any way any other obligations assumed by the Contractor under the agreement. Contractor shall be held accountable for all insurance coverages, including those of sub-contractors. Company shall not be under any duty to advise Contractor in the event that Contractor's insurance is not in compliance with this agreement. ACCEPTANCE OF ANY INSURANCE CERTIFICATE SHALL NOT CONSTITUTE ACCEPTANCE OF THE ADEQUACY OF COVERAGE, COMPLIANCE WITH THE REQUIREMENTS OF THE AGREEMENT, OR AN AMENDMENT TO THE AGREEMENT.

INTERMITTENT SERVICES AGREEMENT

Date: June 13, 2005
Agreement Number: 0500279-A

Contractor: TAS Environmental Services, L.P.

PARTIES
It is hereby agreed between:

(i) Flint Hills Resources, L.P. Koch Pipeline Company, L.P., (such company or companies being collectively referred to hereinafter as "Company"), whose business address is P.O. Box 2256, Wichita, Kansas 67201, and

(ii) TAS Environmental Services, L.P. (such company being referred to hereinafter as "Contractor"), whose business address is 3929 California Parkway, Ft. Worth, TX 76119,

that Contractor will, as an independent contractor, furnish all necessary supervision, labor, materials and equipment (other than specified labor, materials and equipment furnished by Company) and shall perform work for Company as requested by Company from time to time during the term of this agreement in conformity with the terms of this agreement.

SPECIAL CONDITIONS:

1. Contractor represents and warrants that it is classified by the United States Coast Guard as a Class: A,B,C,D, and/or E <Applied For>_____ Oil Spill Response Organization (OSRO) for i.e. Great Lakes, inland, rivers and canals, or oceans <Applied For>_____ environment(s) in the following geographic location(s) Fort Worth, TX; San Antonio, TX, Dallas, TX, Austin, TX. Attached hereto as Schedule 1 is a copy of Contractor's current OSRO Classification Letter. If Contractor is not OSRO classified, attach a complete list and description of all response equipment, personnel and training that will be maintained and made available by Contractor during the term of this agreement.

Upon telephone notification from Company, Contractor shall respond to any spill or release of oil or hazardous substance with the personnel and equipment specified by Company. Company may identify Contractor as an Oil Spill Response Organization in any facility response plan developed pursuant to the Federal Oil Pollution Act of 1990, or any state counterpart thereto, for any facility located in the geographic location(s) identified above. Contractor shall respond hereunder at the request of Company whether or not Company has identified Contractor in the particular facility's response plan. Contractor shall notify Company of any change in Contractor's OSRO classification [e.g. suspension or revocation or changes in class level(s), operating environment(s), or geographic location(s)] as soon as possible, but in no event more than five (5) calendar days after the effective date of such change, suspension, or revocation. If Contractor is not ORSO classified, Contractor shall notify Company within five (5) calendar days of any material change in response equipment or personnel availability and shall provide Company with an updated list and description of such resources.

Contractor shall comply with all Federal, State and local laws, rules and regulations, including but not limited to all rules and regulations promulgated and in force pursuant to the Occupational, Safety and Health Act and all HazCom, HazMat, and HazWoper requirements set forth therein. Contractor shall be solely responsible for ensuring its employees have received all certifications and training required by the Occupational, Safety and Health Act, and any and all other applicable Federal, State or local laws, rules or regulations.

Contractor shall be compensated in accordance with the attached rates marked as "Exhibit A". In the event of a conflict between the provisions contained within the main body of this agreement and a provision contained within Exhibit A, the provisions in the main body of this agreement shall control. The rates shall include, without limitation, all applicable taxes imposed by federal, state or other governments or bodies having jurisdiction.

BILLING AND PAYMENT

2. Contractor shall submit to Company's authorized representatives an itemized statement detailing charges for labor and equipment including hours, dates, the hourly charge for the labor or equipment and any charge for materials at the end of each month during which work is performed. Contractor shall furnish upon demand any records relating to the statement prior to or after payment by Company. If "Company", as defined above, includes more then one entity, Contractor agrees that each such entity will be separately, not jointly, responsible for the payment obligations hereunder as relating to work performed for such entity.

3. Payment shall be made within thirty (30) days of Company's receipt of the statement described in Paragraph 2 of this agreement. Company reserves the right to withhold payment until completion of the work and its acceptance by Company or until Contractor furnishes proof satisfactory to Company that all bills for materials and labor covering the work have been fully paid by Contractor, and that the premises upon which the work is done and any structures built, improved or added to are not subject to any material or labor liens or claims of liens. Final payment shall be made within thirty (30) days of the date of acceptance of the work by Company. Contractor and/or any subcontractor shall promptly and satisfactorily settle all liens and claims for labor performed and supplies or material furnished in connection with the work; and in the event Contractor fails or refuses to promptly and satisfactorily settle any such liens or claims, Company shall, after notifying Contractor in writing, have the right to settle such claims for the account of Contractor and deduct the amount thereof from amounts payable to Contractor. Payments made under this agreement shall not constitute full or partial acceptance of the work or any part of the work by Company.

PERFORMANCE OF WORK

4. Contractor shall rely solely upon Contractor's own examination and investigation of the surface and subsurface conditions at the site, and all local and general conditions that may affect performance of the work.

5. Unless otherwise specified, Contractor shall secure all permits and licenses necessary to the performance of the work, shall pay all fees and make all deposits pertaining thereto, and shall at Contractor's expense furnish all bonds required to perform the work, and shall submit proof thereof to Company.

6. Contractor shall perform the work:
a. In a workmanlike manner using qualified, efficient and careful workers;
b. In accord with all plans, drawings and specifications;
c. In compliance with all applicable federal, state, local and Company's safety rules and regulations;
d. In a manner to protect the work, the environment, Company's property and the property and persons of others from loss, damage or injury of any type;
e. So as not to interfere with the operations of others on the premises; and,
f. Under the supervision of an employee of Contractor.

An employee supplied by Contractor without supervision by Contractor and who is under the exclusive direction and control of Company shall be considered a borrowed servant. In all other cases, the employee shall be considered an employee of Contractor as an independent contractor. Contractor's duties to defend, indemnify, protect and hold harmless Company under Paragraph 12 of this agreement shall continue regardless of the characterization of an employee as a borrowed servant or the employee of an independent contractor.

7. Company may maintain such representatives as it deems necessary on the work site for the purpose of inspecting, testing and ensuring the satisfactory completion of the work. Company may inspect the work at any time during the progress of the work, and Contractor shall provide reasonable facilities for such inspection. If any applicable statute, regulation or order requires any part of the work to be specially tested or approved, Contractor shall give Company reasonable notice of the time and place of such testing and inspection. Company may require Contractor to correct defective work or Company may have the work corrected by others, and, in either event, Contractor shall bear the cost of such correction.

8. Unless otherwise specified, all materials shall be new and workmanship shall be of good quality. No substitutions of materials from that specified in the plans and specifications in this agreement shall be permitted unless approval is given by Company in writing.

9. Contractor guarantees the work to be performed hereunder against defects in workmanship and material that shall appear within one year following final acceptance of the work by Company, and Contractor shall promptly remedy all such defects. Contractor shall arrange for the extensions, to Company, of all additional warranties by suppliers of goods or services that are consistent with or extend or expand the terms of the above described warranty of Contractor.

10. Contractor and its employees, agents and subcontractors shall comply with all applicable laws, regulations, ordinances and other rules of federal, state and local government and political subdivisions, and of any other duly constituted authority having jurisdiction.

11. Contractor shall be responsible for, and hereby assumes all liability, whether insured or self-insured, for loss or destruction of or physical damage to the following: All tools, machinery, equipment and appliances that are owned by Contractor or loaned to or leased by Contractor by others than Company and that are not to be incorporated into the completed work; and, all personal property of Contractor's employees, whether or not such loss, destruction or damage is caused by, arises out of, or is in any way connected with the negligence of Company, its employees or agents.

INDEMNITY

12. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL DEFEND, PROTECT, INDEMNIFY AND SAVE COMPANY, ITS PARENT COMPANY, PARTNERS, SUBSIDIARIES AND ANY OTHER RELATED OR AFFILIATED ENTITIES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS AND EMPLOYEES (COLLECTIVELY REFERRED TO FOR PURPOSES OF THIS PARAGRAPH 12 AS "INDEMNITEES") HARMLESS FROM AND AGAINST ALL CLAIMS, LIABILITIES, DAMAGES, DEMANDS, LAWSUITS, CAUSES OF ACTION, STRICT LIABILITY CLAIMS, PENALTIES, FINES, ADMINISTRATIVE LAW ACTIONS AND ORDERS, EXPENSES (INCLUDING, BUT NOT LIMITED TO, ATTORNEYS' FEES) AND COSTS OF EVERY KIND AND CHARACTER (COLLECTIVELY "CLAIMS/LIABILITIES") ARISING OUT OF OR IN ANY WAY INCIDENT TO ANY OF THE WORK PERFORMED BY CONTRACTOR, ITS SUBCONTRACTORS OR THE

EMPLOYEES OF EITHER, ON ACCOUNT OF PERSONAL INJURIES, DEATH, DAMAGE TO PROPERTY, DAMAGE TO THE ENVIRONMENT, OR INFRINGEMENT OF ANY PATENT, TRADEMARK, COPYRIGHT OR OTHER PROPERTY RIGHT, REGARDLESS OF WHETHER SUCH HARM IS TO CONTRACTOR, INDEMNITEES, THE EMPLOYEES OR OFFICERS OF EITHER OR ANY OTHER PERSON OR ENTITY. THE DUTY TO DEFEND, PROTECT, INDEMNIFY AND SAVE INDEMNITEES HARMLESS REFERRED TO IN THE PRECEDING SENTENCE SHALL INCLUDE, BUT NOT BE LIMITED TO, CLAIMS/LIABILITIES THAT RESULT FROM THE COMPARATIVE, CONCURRENT OR CONTRIBUTING NEGLIGENCE OF ANY PERSON OR ENTITY INCLUDING, BUT NOT LIMITED TO, INDEMNITEES OR THEIR AGENTS, EXCEPT CONTRACTOR SHALL NOT BE LIABLE UNDER THIS PARAGRAPH 12 FOR LOSS OR DAMAGE RESULTING FROM THE SOLE (100%) NEGLIGENCE OF INDEMNITEES. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR FURTHER AGREES TO INDEMNIFY, DEFEND AND HOLD INDEMNITEES HARMLESS AGAINST THE PAYMENT OF ANY AND ALL TAXES, PENALTIES, FINES, INTEREST, LIENS OR INDEBTEDNESS OR CLAIMS AGAINST INDEMNITEES' PROPERTY OR FOR WORK PERFORMED, OR MEASURED BY THE WORK PERFORMED, GROWING OUT OF OR INCIDENT TO CONTRACTOR'S OPERATIONS UNDER THIS AGREEMENT INCLUDING, BUT NOT LIMITED TO, TAXES, PENALTIES, FINES, INTEREST, LIENS OR ENCUMBRANCES THAT RESULT FROM THE CONCURRENT OR CONTRIBUTING NEGLIGENCE OF ANY PERSON OR ENTITY, WHICH MAY INCLUDE INDEMNITEES, THEIR AGENTS, EMPLOYEES OR OFFICERS. CONTRACTOR SHALL MAINTAIN AT ITS OWN COST AND EXPENSE INSURANCE COVERING THIS INDEMNITY PROVISION. CONTRACTOR'S DUTIES UNDER THIS PARAGRAPH SURVIVE THE TERMINATION, REVOCATION, OR EXPIRATION OF THIS AGREEMENT.

INSURANCE

13. In addition to any other insurance that Contractor shall acquire under this agreement, Contractor shall maintain at its own cost and expense such insurance of the types and in the amounts as required by Company to insure all of Contractor's obligations under this agreement and that will protect Company from all claims for damages to persons and to property that may arise from any operations under this agreement or any subcontracts related to this agreement. Contractor shall maintain during the entire term of this agreement insurance policies within minimum limits of coverage all as set forth on Exhibit B, which is made a part hereof by reference. Prior to commencing work, Contractor shall require its insurer or insurance agent to supply Company a certificate of insurance in the form as set forth on Exhibit C. Such insurance shall name Company as an additional insured in accordance with the requirements of Exhibit B, with such additional insured endorsements providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them). All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs unless specifically consented to in writing by Company. The insurance coverages to be provided by Contractor under this paragraph, including but not limited to the additional insured coverage provided to Company, shall be independent of the indemnity provisions of this agreement, and are not designed solely to guarantee payment of Contractor's indemnity obligations.

GENERAL PROVISIONS

14. This agreement may not be assigned in whole or in part by Contractor without the prior written consent of Company, nor shall work under the contract be assigned to a subcontractor without the prior written consent of Company.

15. No amendment to this agreement shall be valid unless made in writing and signed by authorized representatives of both parties.

16. Company's right to require strict performance of Contractor's obligations shall not be affected in any way by prior waiver, forbearance or other course of dealing.

17. This agreement and any subsequent amendments comprise the entire agreement between Company and Contractor with respect to the subject matter hereof, and there are no agreements, understandings, conditions, or representations, oral or written, expressed or implied, that are not merged into this agreement or superseded by it.

18. Subject to any restrictions imposed by applicable laws, if Contractor has a petition in bankruptcy filed by or against it, has a receiver appointed for it, becomes insolvent, makes a general assignment for the benefit of creditors, refuses or fails to supply competent supervision or enough properly skilled people or proper material, disregards laws, rules or regulations applicable to the work, or otherwise violates any provision of this agreement, then Company shall have the right (in addition to any other rights it may have at law or in equity) to treat such as a breach of this agreement and may upon the giving of written notice terminate this agreement, terminate employment of Contractor, and take possession of the premises, all materials, tools, equipment, supplies, and appliances of any type and finish the work by whatever method Company may deem appropriate.

19. Company may require Contractor to furnish a surety bond in the full amount of and guaranteeing faithful performance of this agreement, or otherwise guaranteeing Contractor's obligations under this agreement. Such bond(s) shall be written on a form prescribed or approved by Company and shall be purchased from a source approved by Company.

20. Company shall have the right, at any reasonable time and from time to time, to audit any and all records, documents and other data pertaining to this agreement. Contractor shall cooperate in furnishing to Company all such records, documents and other data in connection with any such audit.

21. Company does not guarantee an offer of work to Contractor during the term of this agreement. Company and Contractor agree, however, that any work offered by Company to Contractor and accepted by Contractor during the term of this agreement will be performed under the terms of this agreement. Company shall not be liable in damages or otherwise, if by reason of an

act of God or public enemy, strike, lockout, boycott, picketing, riot, insurrection, fire, or any governmental order, rule, or regulation, or any ordinance Company shall be delayed in, or prevented from, furnishing any materials, equipment, facilities, services, etc., required to be furnished by it hereunder.

22. Contractor shall comply with and be subject to the most recent Substance Abuse Policy issued by Koch Industries, Inc. All employees of Contractor shall be subject to drug testing when on the premises of Company. In addition to the foregoing requirements, should Contractor perform services related to facilities regulated by the United States Department of Transportation, Contractor shall have developed and implemented, or have contracted with an organization that has developed and implemented, substance abuse policies in compliance with 41 U.S.C. 701, et seq., 49 C.F.R. Part 199 and 49 C.F.R. Part 40, if applicable; and, with respect to equal employment opportunity and affirmative action compliance, Contractor shall comply with the provisions of Section 202 of Executive Order 11246 and the rules and regulations issued pursuant to Section 201 thereof. Contractor shall provide Company with documentation demonstrating compliance with such laws upon the request of Company.

23. Contractor warrants and represents that, to the extent applicable to any activities that may be performed pursuant to this agreement by Contractor or its subcontractors, all of Contractor's employees and its subcontractors' employees have received all safety training required by law for employees working in an environment in which they may come in contact with crude oil, natural gas, natural gas liquids, refined products or hazardous materials. Contractor agrees to permit Company to inspect Contractor's records in order to assure compliance with this Paragraph 23.

24. In the event any provision herein shall be judicially interpreted or held to be void or otherwise unenforceable as written, such provision shall be deemed to be revised and modified to the extent necessary to make it legally enforceable. In any event, the remaining terms of the agreement shall be enforceable as though the void or unenforceable provision did not exist.

CONFIDENTIALITY

25. All information that Contractor acquires from Company hereunder, directly or indirectly, and all information that arises out of the Work performed hereunder, concerning such Work and/or proprietary processes involved in the Work, including without limitation, information concerning Company's current and future business plans, information relating to Company's operations, and other Company-furnished information and know-how relating to the Work shall be deemed Company's "Proprietary Information." Company's Proprietary Information shall be held in strictest confidence by Contractor and shall be used solely for purposes of performing such Services. The obligations under this Paragraph shall survive completion of such work/services and termination of this Agreement.

TERM

26. This agreement shall be effective as of the date first above written and shall continue for a one-year period following that date. At the end of the initial one-year period, the agreement shall continue until replaced by a subsequent agreement or otherwise revoked by written notice by either party.

SO AGREED, EXECUTED ON THE DATES INDICATED BELOW, BUT EFFECTIVE AS OF THE DATE FIRST ABOVE WRITTEN:

COMPANY
Flint Hills Resources, LP
Koch Pipeline Company, L.P.

By Bob O'Hair
Bob O'Hair
(Printed Name)
Title Vice President
Date 6-22-05

CONTRACTOR
TAS Environmental Services, L.P.

Federal ID Number: 20-1454928

By
J Salter
(Printed Name)
Title President of GP
Date 6.13.5

Exhibit B
Insurance Requirements
Supplement to Intermittent Services Agreement 0500279-A

1.0 With respect to Contractor's performance of the agreement to which this exhibit is attached (referred to hereinafter as the "agreement"), Contractor shall maintain the following insurance:

1.1 **Worker's Compensation and Employers' Liability Insurance**, as prescribed by applicable law including insurance covering liability under the Longshoremen's and Harbor Workers' Compensation Act, the Merchant Marine Act of 1920 (Jones Act) and the Outer Continental Shelf Land Act, if applicable. Coverage will include an Alternate Employer Endorsement (WC 00 03 01) naming Company as an Alternate Employer. Contractor shall require its insurer or insurance agent to provide, as requested by Company, Contractor's Experience Modification Rating (EMR).

1.2 **Commercial General Liability Insurance**, which shall be at least as broad as the coverage provided by a standard form Commercial General Liability Policy (ISO CG 00 01 01 96, with standard exclusions "a" through "n"; ISO forms CG 00 01 07 98 or CG 00 01 10 01, with standard exclusions "a" through "o", with a minimum combined single limit of **$3,000,000** per occurrence for Bodily injury and Property Damage and a **$3,000,000** aggregate each for the general policy and the Products/Completed Operations hazard. This insurance must include the following features:

1.2.1 If work to be performed by Contractor includes construction or demolition operations within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing, and if Contractor's commercial general liability insurance policy is form ISO CG 00 01 11 88, then such policy will include a Railroad's Contractual Liability Endorsement CG 24 17 10 93.

1.2.2 Contractual Liability coverage.

1.2.3 Products and Completed operations.

1.2.4 Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of the ground (XCU coverage), if applicable.

1.2.5 Coverage will include one of the following endorsements naming Company as an additional insured:

(i) Additional Insured - Owners, Lessees or Contractors (Form B) Endorsement (CG 20 10 10 93); or
(ii) Additional Insured - Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 03 97); or
(iii) Additional Insured – Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 10 01).

1.3 **Automobile Liability Insurance**, covering all owned, non owned, hired and leased vehicles with a minimum combined single limit for Bodily Injury and Property Damage of **$3,000,000** per accident. This insurance must include contractual liability coverage.

1.4 **Aircraft Liability Insurance** - If any operations require the use of aircraft, including helicopters, Contractor shall maintain or require owners of such aircraft to maintain Aircraft Liability Insurance with a combined single limit of not less than **$5,000,000** for bodily injury and property damage (including, passenger) liability.

1.5 **Hull and Machinery Insurance** covering vessels or barges owned or bareboat chartered by Contractor and used by Contractor in the performance of the agreement. Such vessels shall be insured for no less than the fair market value of such vessel or barge. Coverage shall include **Collision Liability Insurance** with limits no less than **$5,000,000.**

1.6 **Protection and Indemnity Insurance** - If marine work is to be performed under the agreement, Contractor shall maintain Protection and Indemnity Insurance, including coverage for injuries to or death of masters, mates and crews of vessels used in the performance of the agreement. The limits of liability of such insurance shall not be less than **$5,000,000** per occurrence. Contractor may cover its obligation for loss of life or bodily injury to the crew of the vessel by extension of the Workers Compensation Insurance 1.1 above (Jones Act). Coverage shall also include pollution liability for loss as specified in the requirements of applicable United States Federal and State Laws. All certificates evidencing financial responsibility shall be current and carried on board.

1.7 **Railroad Protective Liability** - If required by Company, Contractor shall maintain Railroad Protective Liability Insurance naming the railroad as the insured with a limit for bodily injury and property damage liability of **$2,000,000** per occurrence, **$6,000,000** aggregate. The original of said policy shall be furnished to railroad prior to any construction or entry upon the railroad easement premises by Contractor.

1.8 **Umbrella / Excess Insurance** - The limits specified in 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 above may be satisfied with a combination of primary and Umbrella/Excess Insurance, such policies naming Company as additional insured.

1.9 **Pollution Liability Insurance - If required by Company,** Contractor shall provide and maintain, and ensure that all of Contractor's subcontractors provide and maintain, the following insurances: Contractor's Pollution Liability Insurance with coverage for (a.) bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death; (b.) property damage, including physical injury to or destruction of tangible property, including the resulting loss of use thereof, clean up costs, and the loss of use of tangible property that has not been physically injured or destroyed; (c.) defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; for losses caused by pollution conditions that arise from the operations of the Contractor performed under this Agreement. If such policy is written on a claims-made basis, the Contractor warrants that continuous coverage will be maintained, or an extended coverage period will be exercised for a period of 12 months, beginning from the time the work under this Agreement is completed. Contractor agrees to name Company as an additional insured and to furnish insurance certificates showing the Contractor's compliance with this Paragraph 1.9. Contractor also agrees to notify Company 30 days in advance of any cancellation or change to the insurance coverages shown on the certificate. Contractor shall maintain limits no less than Pollution Legal Liability: **$5,000,000 per loss** and **$5,000,000 annual aggregate.**

Note: Coverage for Contractor's Pollution Liability Insurance can be satisfied by the addition of a time element buyback endorsement on the General Liability Policy. The coverage must be as broad as the coverage described above, with a minimum requirement for discovery of 7 days and a minimum reporting period of 60 days.

Contractor shall, before commencing work, provide Company with a certificate of insurance satisfactory to Company of the insurance coverages set forth above.

2.0 **Policy Endorsements**

2.1 The above insurance shall include a requirement that the insurer provide Company with thirty (30) days' written notice prior to the effective date of any cancellation or material change of the insurance.

2.2 The insurance specified in Sections 1.2, 1.4, 1.5, 1.6, 1.8 and 1.9 hereof, as well as any Excess/Umbrella insurance coverage available to Contractor, shall:

i) Name Company as an additional insured with respect to work performed for Company, with such additional insured endorsement providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them);
ii) Be primary to and not in excess of or contributory with any other insurance available to Company; and
iii) Acknowledge that in no event shall Company's insurance, including but not limited to any SIR or deductible, be considered "other insurance" under the terms of Contractor's policies .

3.0 **Evidence of Insurance** - Contractor shall, before commencing work, provide Company with a certificate (see attached **Exhibit C**) satisfactory to Company of the insurance coverages and endorsements set forth in Sections 1.0 and 2.0 above. If requested by Company, Contractor shall provide Company with certified copies of all policies.

4.0 **Waiver of Subrogation**

4.1 Contractor, on behalf of its insurers, waives any right of subrogation that such insurers may have against Company arising out of this agreement.

4.2 The insurance specified in Section 1.1 hereof shall contain a waiver of the right of subrogation against Company and an assignment of statutory lien, if applicable.

4.3 Any physical damage insurance carried by Contractor on construction equipment, tools, temporary structures and supplies owned or used by Contractor shall provide a waiver of the right of subrogation against Company.

5.0 All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs, unless specifically consented to in writing by Company.

6.0 The obligation to carry the insurance required by this Exhibit shall not limit or modify in any way any other obligations assumed by the Contractor under the agreement. Contractor shall be held accountable for all insurance coverages, including those of sub-contractors. Company shall not be under any duty to advise Contractor in the event that Contractor's insurance is not in compliance with this agreement. ACCEPTANCE OF ANY INSURANCE CERTIFICATE SHALL NOT CONSTITUTE ACCEPTANCE OF THE ADEQUACY OF COVERAGE, COMPLIANCE WITH THE REQUIREMENTS OF THE AGREEMENT, OR AN AMENDMENT TO THE AGREEMENT.

INTERMITTENT SERVICES AGREEMENT

Date: June 13, 2005
Agreement Number: 0500279-A

Contractor: TAS Environmental Services, L.P.

PARTIES
It is hereby agreed between:

(i) Flint Hills Resources, L.P. Koch Pipeline Company, L.P., (such company or companies being collectively referred to hereinafter as "Company"), whose business address is P.O. Box 2256, Wichita, Kansas 67201, and

(ii) TAS Environmental Services, L.P. (such company being referred to hereinafter as "Contractor"), whose business address is 3929 California Parkway, Ft. Worth, TX 76119,

that Contractor will, as an independent contractor, furnish all necessary supervision, labor, materials and equipment (other than specified labor, materials and equipment furnished by Company) and shall perform work for Company as requested by Company from time to time during the term of this agreement in conformity with the terms of this agreement.

SPECIAL CONDITIONS:

1. Contractor represents and warrants that it is classified by the United States Coast Guard as a Class: A,B,C,D, and/or E (Applied For)_____ Oil Spill Response Organization (OSRO) for i.e. Great Lakes, inland, rivers and canals, or oceans (Applied For)_____ environment(s) in the following geographic location(s) Fort Worth, TX; San Antonio, TX, Dallas, TX, Austin, TX. Attached hereto as Schedule 1 is a copy of Contractor's current OSRO Classification Letter. If Contractor is not OSRO classified, attach a complete list and description of all response equipment, personnel and training that will be maintained and made available by Contractor during the term of this agreement.

Upon telephone notification from Company, Contractor shall respond to any spill or release of oil or hazardous substance with the personnel and equipment specified by Company. Company may identify Contractor as an Oil Spill Response Organization in any facility response plan developed pursuant to the Federal Oil Pollution Act of 1990, or any state counterpart thereto, for any facility located in the geographic location(s) identified above. Contractor shall respond hereunder at the request of Company whether or not Company has identified Contractor in the particular facility's response plan. Contractor shall notify Company of any change in Contractor's OSRO classification [e.g. suspension or revocation or changes in class level(s), operating environment(s), or geographic location(s)] as soon as possible, but in no event more than five (5) calendar days after the effective date of such change, suspension, or revocation. If Contractor is not ORSO classified, Contractor shall notify Company within five (5) calendar days of any material change in response equipment or personnel availability and shall provide Company with an updated list and description of such resources.

Contractor shall comply with all Federal, State and local laws, rules and regulations, including but not limited to all rules and regulations promulgated and in force pursuant to the Occupational, Safety and Health Act and all HazCom, HazMat, and HazWoper requirements set forth therein. Contractor shall be solely responsible for ensuring its employees have received all certifications and training required by the Occupational, Safety and Health Act, and any and all other applicable Federal, State or local laws, rules or regulations.

Contractor shall be compensated in accordance with the attached rates marked as "Exhibit A". In the event of a conflict between the provisions contained within the main body of this agreement and a provision contained within Exhibit A, the provisions in the main body of this agreement shall control. The rates shall include, without limitation, all applicable taxes imposed by federal, state or other governments or bodies having jurisdiction.

BILLING AND PAYMENT

2. Contractor shall submit to Company's authorized representatives an itemized statement detailing charges for labor and equipment including hours, dates, the hourly charge for the labor or equipment and any charge for materials at the end of each month during which work is performed. Contractor shall furnish upon demand any records relating to the statement prior to or after payment by Company. If "Company", as defined above, includes more then one entity, Contractor agrees that each such entity will be separately, not jointly, responsible for the payment obligations hereunder as relating to work performed for such entity.

3. Payment shall be made within thirty (30) days of Company's receipt of the statement described in Paragraph 2 of this agreement. Company reserves the right to withhold payment until completion of the work and its acceptance by Company or until Contractor furnishes proof satisfactory to Company that all bills for materials and labor covering the work have been fully paid by Contractor, and that the premises upon which the work is done and any structures built, improved or added to are not subject to any material or labor liens or claims of liens. Final payment shall be made within thirty (30) days of the date of acceptance of the work by Company. Contractor and/or any subcontractor shall promptly and satisfactorily settle all liens and claims for labor performed and supplies or material furnished in connection with the work; and in the event Contractor fails or refuses to promptly and satisfactorily settle any such liens or claims, Company shall, after notifying Contractor in writing, have the right to settle such claims for the account of Contractor and deduct the amount thereof from amounts payable to Contractor. Payments made under this agreement shall not constitute full or partial acceptance of the work or any part of the work by Company.

PERFORMANCE OF WORK

4. Contractor shall rely solely upon Contractor's own examination and investigation of the surface and subsurface conditions at the site, and all local and general conditions that may affect performance of the work.

5. Unless otherwise specified, Contractor shall secure all permits and licenses necessary to the performance of the work, shall pay all fees and make all deposits pertaining thereto, and shall at Contractor's expense furnish all bonds required to perform the work, and shall submit proof thereof to Company.

6. Contractor shall perform the work:
a. In a workmanlike manner using qualified, efficient and careful workers;
b. In accord with all plans, drawings and specifications;
c. In compliance with all applicable federal, state, local and Company's safety rules and regulations;
d. In a manner to protect the work, the environment, Company's property and the property and persons of others from loss, damage or injury of any type;
e. So as not to interfere with the operations of others on the premises; and,
f. Under the supervision of an employee of Contractor.

An employee supplied by Contractor without supervision by Contractor and who is under the exclusive direction and control of Company shall be considered a borrowed servant. In all other cases, the employee shall be considered an employee of Contractor as an independent contractor. Contractor's duties to defend, indemnify, protect and hold harmless Company under Paragraph 12 of this agreement shall continue regardless of the characterization of an employee as a borrowed servant or the employee of an independent contractor.

7. Company may maintain such representatives as it deems necessary on the work site for the purpose of inspecting, testing and ensuring the satisfactory completion of the work. Company may inspect the work at any time during the progress of the work, and Contractor shall provide reasonable facilities for such inspection. If any applicable statute, regulation or order requires any part of the work to be specially tested or approved, Contractor shall give Company reasonable notice of the time and place of such testing and inspection. Company may require Contractor to correct defective work or Company may have the work corrected by others, and, in either event, Contractor shall bear the cost of such correction.

8. Unless otherwise specified, all materials shall be new and workmanship shall be of good quality. No substitutions of materials from that specified in the plans and specifications in this agreement shall be permitted unless approval is given by Company in writing.

9. Contractor guarantees the work to be performed hereunder against defects in workmanship and material that shall appear within one year following final acceptance of the work by Company, and Contractor shall promptly remedy all such defects. Contractor shall arrange for the extensions, to Company, of all additional warranties by suppliers of goods or services that are consistent with or extend or expand the terms of the above described warranty of Contractor.

10. Contractor and its employees, agents and subcontractors shall comply with all applicable laws, regulations, ordinances and other rules of federal, state and local government and political subdivisions, and of any other duly constituted authority having jurisdiction.

11. Contractor shall be responsible for, and hereby assumes all liability, whether insured or self-insured, for loss or destruction of or physical damage to the following: All tools, machinery, equipment and appliances that are owned by Contractor or loaned to or leased by Contractor by others than Company and that are not to be incorporated into the completed work; and, all personal property of Contractor's employees, whether or not such loss, destruction or damage is caused by, arises out of, or is in any way connected with the negligence of Company, its employees or agents.

INDEMNITY

12. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL DEFEND, PROTECT, INDEMNIFY AND SAVE COMPANY, ITS PARENT COMPANY, PARTNERS, SUBSIDIARIES AND ANY OTHER RELATED OR AFFILIATED ENTITIES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS AND EMPLOYEES (COLLECTIVELY REFERRED TO FOR PURPOSES OF THIS PARAGRAPH 12 AS "INDEMNITEES") HARMLESS FROM AND AGAINST ALL CLAIMS, LIABILITIES, DAMAGES, DEMANDS, LAWSUITS, CAUSES OF ACTION, STRICT LIABILITY CLAIMS, PENALTIES, FINES, ADMINISTRATIVE LAW ACTIONS AND ORDERS, EXPENSES (INCLUDING, BUT NOT LIMITED TO, ATTORNEYS' FEES) AND COSTS OF EVERY KIND AND CHARACTER (COLLECTIVELY "CLAIMS/LIABILITIES") ARISING OUT OF OR IN ANY WAY INCIDENT TO ANY OF THE WORK PERFORMED BY CONTRACTOR, ITS SUBCONTRACTORS OR THE

EMPLOYEES OF EITHER, ON ACCOUNT OF PERSONAL INJURIES, DEATH, DAMAGE TO PROPERTY, DAMAGE TO THE ENVIRONMENT, OR INFRINGEMENT OF ANY PATENT, TRADEMARK, COPYRIGHT OR OTHER PROPERTY RIGHT, REGARDLESS OF WHETHER SUCH HARM IS TO CONTRACTOR, INDEMNITEES, THE EMPLOYEES OR OFFICERS OF EITHER OR ANY OTHER PERSON OR ENTITY. THE DUTY TO DEFEND, PROTECT, INDEMNIFY AND SAVE INDEMNITEES HARMLESS REFERRED TO IN THE PRECEDING SENTENCE SHALL INCLUDE, BUT NOT BE LIMITED TO, CLAIMS/LIABILITIES THAT RESULT FROM THE COMPARATIVE, CONCURRENT OR CONTRIBUTING NEGLIGENCE OF ANY PERSON OR ENTITY INCLUDING, BUT NOT LIMITED TO, INDEMNITEES OR THEIR AGENTS, EXCEPT CONTRACTOR SHALL NOT BE LIABLE UNDER THIS PARAGRAPH 12 FOR LOSS OR DAMAGE RESULTING FROM THE SOLE (100%) NEGLIGENCE OF INDEMNITEES. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR FURTHER AGREES TO INDEMNIFY, DEFEND AND HOLD INDEMNITEES HARMLESS AGAINST THE PAYMENT OF ANY AND ALL TAXES, PENALTIES, FINES, INTEREST, LIENS OR INDEBTEDNESS OR CLAIMS AGAINST INDEMNITEES' PROPERTY OR FOR WORK PERFORMED, OR MEASURED BY THE WORK PERFORMED, GROWING OUT OF OR INCIDENT TO CONTRACTOR'S OPERATIONS UNDER THIS AGREEMENT INCLUDING, BUT NOT LIMITED TO, TAXES, PENALTIES, FINES, INTEREST, LIENS OR ENCUMBRANCES THAT RESULT FROM THE CONCURRENT OR CONTRIBUTING NEGLIGENCE OF ANY PERSON OR ENTITY, WHICH MAY INCLUDE INDEMNITEES, THEIR AGENTS, EMPLOYEES OR OFFICERS. CONTRACTOR SHALL MAINTAIN AT ITS OWN COST AND EXPENSE INSURANCE COVERING THIS INDEMNITY PROVISION. CONTRACTOR'S DUTIES UNDER THIS PARAGRAPH SURVIVE THE TERMINATION, REVOCATION, OR EXPIRATION OF THIS AGREEMENT.

INSURANCE

13. In addition to any other insurance that Contractor shall acquire under this agreement, Contractor shall maintain at its own cost and expense such insurance of the types and in the amounts as required by Company to insure all of Contractor's obligations under this agreement and that will protect Company from all claims for damages to persons and to property that may arise from any operations under this agreement or any subcontracts related to this agreement. Contractor shall maintain during the entire term of this agreement insurance policies within minimum limits of coverage all as set forth on Exhibit B, which is made a part hereof by reference. Prior to commencing work, Contractor shall require its insurer or insurance agent to supply Company a certificate of insurance in the form as set forth on Exhibit C. Such insurance shall name Company as an additional insured in accordance with the requirements of Exhibit B, with such additional insured endorsements providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them). All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs unless specifically consented to in writing by Company. The insurance coverages to be provided by Contractor under this paragraph, including but not limited to the additional insured coverage provided to Company, shall be independent of the indemnity provisions of this agreement, and are not designed solely to guarantee payment of Contractor's indemnity obligations.

GENERAL PROVISIONS

14. This agreement may not be assigned in whole or in part by Contractor without the prior written consent of Company, nor shall work under the contract be assigned to a subcontractor without the prior written consent of Company.

15. No amendment to this agreement shall be valid unless made in writing and signed by authorized representatives of both parties.

16. Company's right to require strict performance of Contractor's obligations shall not be affected in any way by prior waiver, forbearance or other course of dealing.

17. This agreement and any subsequent amendments comprise the entire agreement between Company and Contractor with respect to the subject matter hereof, and there are no agreements, understandings, conditions, or representations, oral or written, expressed or implied, that are not merged into this agreement or superseded by it.

18. Subject to any restrictions imposed by applicable laws, if Contractor has a petition in bankruptcy filed by or against it, has a receiver appointed for it, becomes insolvent, makes a general assignment for the benefit of creditors, refuses or fails to supply competent supervision or enough properly skilled people or proper material, disregards laws, rules or regulations applicable to the work, or otherwise violates any provision of this agreement, then Company shall have the right (in addition to any other rights it may have at law or in equity) to treat such as a breach of this agreement and may upon the giving of written notice terminate this agreement, terminate employment of Contractor, and take possession of the premises, all materials, tools, equipment, supplies, and appliances of any type and finish the work by whatever method Company may deem appropriate.

19. Company may require Contractor to furnish a surety bond in the full amount of and guaranteeing faithful performance of this agreement, or otherwise guaranteeing Contractor's obligations under this agreement. Such bond(s) shall be written on a form prescribed or approved by Company and shall be purchased from a source approved by Company.

20. Company shall have the right, at any reasonable time and from time to time, to audit any and all records, documents and other data pertaining to this agreement. Contractor shall cooperate in furnishing to Company all such records, documents and other data in connection with any such audit.

21. Company does not guarantee an offer of work to Contractor during the term of this agreement. Company and Contractor agree, however, that any work offered by Company to Contractor and accepted by Contractor during the term of this agreement will be performed under the terms of this agreement. Company shall not be liable in damages or otherwise, if by reason of an

act of God or public enemy, strike, lockout, boycott, picketing, riot, insurrection, fire, or any governmental order, rule, or regulation, or any ordinance Company shall be delayed in, or prevented from, furnishing any materials, equipment, facilities, services, etc., required to be furnished by it hereunder.

22. Contractor shall comply with and be subject to the most recent Substance Abuse Policy issued by Koch Industries, Inc. All employees of Contractor shall be subject to drug testing when on the premises of Company. In addition to the foregoing requirements, should Contractor perform services related to facilities regulated by the United States Department of Transportation, Contractor shall have developed and implemented, or have contracted with an organization that has developed and implemented, substance abuse policies in compliance with 41 U.S.C. 701, et seq., 49 C.F.R. Part 199 and 49 C.F.R. Part 40, if applicable; and, with respect to equal employment opportunity and affirmative action compliance, Contractor shall comply with the provisions of Section 202 of Executive Order 11246 and the rules and regulations issued pursuant to Section 201 thereof. Contractor shall provide Company with documentation demonstrating compliance with such laws upon the request of Company.

23. Contractor warrants and represents that, to the extent applicable to any activities that may be performed pursuant to this agreement by Contractor or its subcontractors, all of Contractor's employees and its subcontractors' employees have received all safety training required by law for employees working in an environment in which they may come in contact with crude oil, natural gas, natural gas liquids, refined products or hazardous materials. Contractor agrees to permit Company to inspect Contractor's records in order to assure compliance with this Paragraph 23.

24. In the event any provision herein shall be judicially interpreted or held to be void or otherwise unenforceable as written, such provision shall be deemed to be revised and modified to the extent necessary to make it legally enforceable. In any event, the remaining terms of the agreement shall be enforceable as though the void or unenforceable provision did not exist.

CONFIDENTIALITY

25. All information that Contractor acquires from Company hereunder, directly or indirectly, and all information that arises out of the Work performed hereunder, concerning such Work and/or proprietary processes involved in the Work, including without limitation, information concerning Company's current and future business plans, information relating to Company's operations, and other Company-furnished information and know-how relating to the Work shall be deemed Company's "Proprietary Information." Company's Proprietary Information shall be held in strictest confidence by Contractor and shall be used solely for purposes of performing such Services. The obligations under this Paragraph shall survive completion of such work/services and termination of this Agreement.

TERM

26. This agreement shall be effective as of the date first above written and shall continue for a one-year period following that date. At the end of the initial one-year period, the agreement shall continue until replaced by a subsequent agreement or otherwise revoked by written notice by either party.

SO AGREED, EXECUTED ON THE DATES INDICATED BELOW, BUT EFFECTIVE AS OF THE DATE FIRST ABOVE WRITTEN:

COMPANY
Flint Hills Resources, LP
Koch Pipeline Company, L.P.

By Bob O'Hair
Bob O'Hair
(Printed Name)
Title Vice President
Date 6-22-05

CONTRACTOR
TAS Environmental Services, L.P.

Federal ID Number: 20-1454928

By J Salter
(Printed Name)
Title President of GP
Date 6.13.5

Exhibit B
Insurance Requirements
Supplement to Intermittent Services Agreement 0500279-A

1.0 With respect to Contractor's performance of the agreement to which this exhibit is attached (referred to hereinafter as the "agreement"), Contractor shall maintain the following insurance:

1.1 **Worker's Compensation and Employers' Liability Insurance**, as prescribed by applicable law including insurance covering liability under the Longshoremen's and Harbor Workers' Compensation Act, the Merchant Marine Act of 1920 (Jones Act) and the Outer Continental Shelf Land Act, if applicable. Coverage will include an Alternate Employer Endorsement (WC 00 03 01) naming Company as an Alternate Employer. Contractor shall require its insurer or insurance agent to provide, as requested by Company, Contractor's Experience Modification Rating (EMR).

1.2 **Commercial General Liability Insurance**, which shall be at least as broad as the coverage provided by a standard form Commercial General Liability Policy (ISO CG 00 01 01 96, with standard exclusions "a" through "n"; ISO forms CG 00 01 07 98 or CG 00 01 10 01, with standard exclusions "a" through "o", with a minimum combined single limit of **$3,000,000** per occurrence for Bodily injury and Property Damage and a **$3,000,000** aggregate each for the general policy and the Products/Completed Operations hazard. This insurance must include the following features:

1.2.1 If work to be performed by Contractor includes construction or demolition operations within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing, and if Contractor's commercial general liability insurance policy is form ISO CG 00 01 11 88, then such policy will include a Railroad's Contractual Liability Endorsement CG 24 17 10 93.

1.2.2 Contractual Liability coverage.

1.2.3 Products and Completed operations.

1.2.4 Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation and damage to property below the surface of the ground (XCU coverage), if applicable.

1.2.5 Coverage will include one of the following endorsements naming Company as an additional insured:

(i) Additional Insured - Owners, Lessees or Contractors (Form B) Endorsement (CG 20 10 10 93); or
(ii) Additional Insured - Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 03 97); or
(iii) Additional Insured – Owners, Lessees or Contractors Scheduled Person or Organization Endorsement (CG 20 10 10 01).

1.3 **Automobile Liability Insurance**, covering all owned, non owned, hired and leased vehicles with a minimum combined single limit for Bodily Injury and Property Damage of **$3,000,000** per accident. This insurance must include contractual liability coverage.

1.4 **Aircraft Liability Insurance** - If any operations require the use of aircraft, including helicopters, Contractor shall maintain or require owners of such aircraft to maintain Aircraft Liability Insurance with a combined single limit of not less than **$5,000,000** for bodily injury and property damage (including, passenger) liability.

1.5 **Hull and Machinery Insurance** covering vessels or barges owned or bareboat chartered by Contractor and used by Contractor in the performance of the agreement. Such vessels shall be insured for no less than the fair market value of such vessel or barge. Coverage shall include **Collision Liability Insurance** with limits no less than **$5,000,000.**

1.6 **Protection and Indemnity Insurance** - If marine work is to be performed under the agreement, Contractor shall maintain Protection and Indemnity Insurance, including coverage for injuries to or death of masters, mates and crews of vessels used in the performance of the agreement. The limits of liability of such insurance shall not be less than **$5,000,000** per occurrence. Contractor may cover its obligation for loss of life or bodily injury to the crew of the vessel by extension of the Workers Compensation Insurance 1.1 above (Jones Act). Coverage shall also include pollution liability for loss as specified in the requirements of applicable United States Federal and State Laws. All certificates evidencing financial responsibility shall be current and carried on board.

1.7 **Railroad Protective Liability** - If required by Company, Contractor shall maintain Railroad Protective Liability Insurance naming the railroad as the insured with a limit for bodily injury and property damage liability of **$2,000,000** per occurrence, **$6,000,000** aggregate. The original of said policy shall be furnished to railroad prior to any construction or entry upon the railroad easement premises by Contractor.

1.8 **Umbrella / Excess Insurance** - The limits specified in 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 above may be satisfied with a combination of primary and Umbrella/Excess Insurance, such policies naming Company as additional insured.

1.9 **Pollution Liability Insurance - If required by Company,** Contractor shall provide and maintain, and ensure that all of Contractor's subcontractors provide and maintain, the following insurances: Contractor's Pollution Liability Insurance with coverage for (a.) bodily injury, sickness, disease, mental anguish or shock sustained by any person, including death; (b.) property damage, including physical injury to or destruction of tangible property, including the resulting loss of use thereof, clean up costs, and the loss of use of tangible property that has not been physically injured or destroyed; (c.) defense, including costs, charges and expenses incurred in the investigation, adjustment or defense of claims for such compensatory damages; for losses caused by pollution conditions that arise from the operations of the Contractor performed under this Agreement. If such policy is written on a claims-made basis, the Contractor warrants that continuous coverage will be maintained, or an extended coverage period will be exercised for a period of 12 months, beginning from the time the work under this Agreement is completed. Contractor agrees to name Company as an additional insured and to furnish insurance certificates showing the Contractor's compliance with this Paragraph 1.9. Contractor also agrees to notify Company 30 days in advance of any cancellation or change to the insurance coverages shown on the certificate. Contractor shall maintain limits no less than Pollution Legal Liability: **$5,000,000 per loss** and **$5,000,000 annual aggregate.**

Note: Coverage for Contractor's Pollution Liability Insurance can be satisfied by the addition of a time element buyback endorsement on the General Liability Policy. The coverage must be as broad as the coverage described above, with a minimum requirement for discovery of 7 days and a minimum reporting period of 60 days.

Contractor shall, before commencing work, provide Company with a certificate of insurance satisfactory to Company of the insurance coverages set forth above.

2.0 **Policy Endorsements**

2.1 The above insurance shall include a requirement that the insurer provide Company with thirty (30) days' written notice prior to the effective date of any cancellation or material change of the insurance.

2.2 The insurance specified in Sections 1.2, 1.4, 1.5, 1.6, 1.8 and 1.9 hereof, as well as any Excess/Umbrella insurance coverage available to Contractor, shall:

i) Name Company as an additional insured with respect to work performed for Company, with such additional insured endorsement providing coverage for Company with respect to liability arising out of Contractor's work performed for Company (including, but not limited to, liability caused or contributed to by the negligence of Contractor, its subcontractors, Company, third parties, or the agents, employees, or officers of any of them);
ii) Be primary to and not in excess of or contributory with any other insurance available to Company; and
iii) Acknowledge that in no event shall Company's insurance, including but not limited to any SIR or deductible, be considered "other insurance" under the terms of Contractor's policies .

3.0 **Evidence of Insurance** - Contractor shall, before commencing work, provide Company with a certificate (see attached **Exhibit C**) satisfactory to Company of the insurance coverages and endorsements set forth in Sections 1.0 and 2.0 above. If requested by Company, Contractor shall provide Company with certified copies of all policies.

4.0 **Waiver of Subrogation**

4.1 Contractor, on behalf of its insurers, waives any right of subrogation that such insurers may have against Company arising out of this agreement.

4.2 The insurance specified in Section 1.1 hereof shall contain a waiver of the right of subrogation against Company and an assignment of statutory lien, if applicable.

4.3 Any physical damage insurance carried by Contractor on construction equipment, tools, temporary structures and supplies owned or used by Contractor shall provide a waiver of the right of subrogation against Company.

5.0 All self-insured retentions ("SIRs") and deductibles shall be the responsibility of and to the account of Contractor; Contractor agrees that such insurance shall not be subject to any SIRs, unless specifically consented to in writing by Company.

6.0 The obligation to carry the insurance required by this Exhibit shall not limit or modify in any way any other obligations assumed by the Contractor under the agreement. Contractor shall be held accountable for all insurance coverages, including those of sub-contractors. Company shall not be under any duty to advise Contractor in the event that Contractor's insurance is not in compliance with this agreement. ACCEPTANCE OF ANY INSURANCE CERTIFICATE SHALL NOT CONSTITUTE ACCEPTANCE OF THE ADEQUACY OF COVERAGE, COMPLIANCE WITH THE REQUIREMENTS OF THE AGREEMENT, OR AN AMENDMENT TO THE AGREEMENT.

Garner Environmental Services, Inc. PREP Report

http://www.orc.uscg.mil/mobilereport.html		Notification JAN - MAR	Notification APR - JUN	Notification JUL - SEP	Notification OCT - DEC	LOCATION	DRILL TYPE	SPILL TYPE	Announced / Unannounced	SKIMMER DEPLOYMENT	BOOM DEPLOYMENT	BOAT DEPLOYMENT	LABOR DEPLOYMENT
1/25/2012		Quarterly	Quarterly	Quarterly	Quarterly		Annually		Annually	Annually	Annually	Annually	Annually
DATE	COMPANY												
Deer Park Regional Office													
	2011												
5-Jan-11	Jacob Stein & Sons	5-Jan-11				Houston, TX	Deployment	Water	Unannounced			5-Jan-11	11-Jan
12-Jan-11	ExxonMobil	12-Jan-11				Baytown, TX	Deployment	Water	Announced			12-Jan-11	12-Jan-11
1-Mar-11	Stoli	1-Mar-11				Channelview, TX	Deployment	Water	Announced		1-Mar-11	1-Mar-11	11-Mar
20-Apr-11	O'Brien's		20-Apr-11			Baytown, TX	Deployment	Water	Unannounced				11-Apr-11
28-Apr-11	USCG		28-Apr-11			Channelview, TX	Deployment	Water	Unannounced		28-Apr-11	28-Apr-11	11-Apr
8-Jun-11	USCG		8-Jun-11			Houston, TX	Deployment	Water	Unannounced			8-Jun-11	8-Jun-11
13-Jun-11	USCG		13-Jun-11			Kemah, TX	Deployment	Water	Unannounced		13-Jun-11	13-Jun-11	11-Jun
	2010												
10-Feb-10	Kinder Morgan	10-Feb-10				Houston, TX	Deployment	Water	Unannounced	10-Feb-10	10-Feb-10	10-Feb-10	Feb-10
4-May-10	Magellan		4-May-10			Houston, TX	Deployment	Water	Unannounced		4-May-10	4-May-10	May-10
18-May-10	Flex Tank Systems		18-May-10			Houston, TX	Deployment	Water	Unannounced		18-May-10	18-May-10	18-May-10
25-May-10	Buffalo Marine Services		25-May-10			Houston, TX	Deployment	Water	Unannounced		25-May-10	25-May-10	25-May-10
3-Jun-10	Lyondell Houston Refinery		3-Jun-10			Houston, TX	Deployment	Water	Unannounced		3-Jun-10	3-Jun-10	3-Jun-10
16-Jun-10	Houston Mooring		16-Jun-10			Houston, TX	Deployment	Water	Unannounced		16-Jun-10	16-Jun-10	16-Jun-10
3-Aug-10	Lyondell Houston Refinery			3-Aug-10		Houston, TX	Deployment	Water	Unannounced		3-Aug-10	3-Aug-10	3-Aug-10
9-Aug-10	Exxon Mobil			9-Aug-10		Baytown, TX	Deployment	Water	Unannounced		9-Aug-10	9-Aug-10	9-Aug-10
15-Sep-10	Southwest Shipyard			15-Sep-10		Houston, TX	Deployment	Water	Unannounced		15-Sep-10	15-Sep-10	15-Sep-10
3-Nov-10	ERG Resources				3-Nov-10	Baytown, TX	Delpoyment	Water	Unannounced		3-Nov-10	3-Nov-10	Nov-10
	2009												
14-Jan-09	L&L Oil Company	14-Jan-09				Houston, TX	Deployment	Water	Unannounced		14-Jan-09	14-Jan-09	14-Jan-09
20-Jan-09	Texas Barge & Boat	20-Jan-09				Freeport, TX	Table Top	Land	Announced				20-Jan-09
16-Feb-09	ExxonMobil	16-Feb-09				Baytown, TX	Deployment	Water	Unannounced		16-Feb-09	16-Feb-09	16-Feb-09
2-Mar-09	ExxonMobil	2-Mar-09				Baytown, TX	Deployment	Water	Unannounced			2-Mar-09	Mar-09
10-Mar-09	Flex Oil Services	10-Mar-09				Cannelview, TX	Deployment	Water	Announced		10-Mar-09	10-Mar-09	Mar-09
28-May-09	Valero		25-May-09			Houston, TX	Deployment	Water	Unannounced		28-May-09	28-May-09	May-09
27-Jul-09	Lubrizol			27-Jul-09		Houston, TX	Deployment	Water	Unannounced		27-Jul-09	27-Jul-09	Jul-09
25-Sep-09	O'Briens			25-Sep-09		Houston, TX	Deployment	Water	Unannounced	25-Sep-09	25-Sep-09	25-Sep-09	Sep-09
26-Sep-09	Buffalo Marine			26-Sep-09		Houston, TX	Deployment	Water	Unannounced			26-Sep-09	Sep-09
19-Oct-09	Buffalo Marine				19-Oct-09	Houston, TX	Deployment	Water	Unannounced		19-Oct-09	19-Oct-09	Oct-09
10-Nov-09	L.B.C.				10-Nov-09	LaPorte,TX	Deployment	Water	Unannounced		10-Nov-09	10-Nov-09	Nov-09
3-Nov-09	USCG				3-Nov-09	LaPorte,TX	Deployment	Water	Unannounced		3-Nov-09	3-Nov-09	Nov-09
	2008												
15-Apr-08	Gulf Mark Energy		15-Apr-08			Bay City, TX	Table Top	Water	Unannounced				15-Apr-08
22-May-08	Oil Tanking		22-May-08			Galena Park, TX	Table Top	Water	Unannounced				22-May-08
12-Jun-08	Trusco Environmental		12-Jun-08			Houston, TX	Table Top	Water	Unannounced				12-Jun-08
16-Sep-08	Shell			16-Sep-08		Deer Park, TX	Deployment	Water	Unannounced			16-Sep-08	16-Sep-08
29-Oct-08	ExxonMobil Terminal				1-Oct-08	Deer Park, TX	Deployment	Land	Announced				Oct-08
28-Oct-08	Westway Terminals				15-Oct-08	Deer Park, TX	Deployment	Water	Announced		28-Oct-08	28-Oct-08	Oct-08
11-Nov-08	Enterprise				11-Nov-08	Houston, TX	Table Top	Land	Unannounced				Nov-08
	2007												
19-Jan-07	Enterprise Transportation	19-Jan-07				Bushkill, PA	Deployment	Land	Announced				19-Jan-07
16-Feb-07	Rockwell Energy	16-Feb-07				Richmond,TX	Deployment	Land	Announced			16-Feb-07	16-Feb-07
19-Mar-07	CITGO Products PL	19-Mar-07				Houston,TX	Deployment	Land	Unannounced				Mar-07
23-Apr-07	Cheveron Phillips Chem		23-Apr-07			Old Ocean,TX	Deployment	land	Unannounced				Apr-07
17-May-07	Mariner Energy		17-May-07			Venice,LA	Deployment	Water	Unannounced	17-Mar-07	10-Mar-07	17-Mar-07	Mar-07
13-Jun-07	Janco Direct Drilling Co		13-Jun-07			Houston,TX	Deployment	Land	Unannounced		13-Jun-07	13-Jun-07	Jun-07
31-Jul-07	ExxonMobil Refining			31-Jul-07		Baytown,TX	Deployment	Land	Unannounced		31-Jul-07	31-Jul-07	Jul-07
20-Aug-07	Shell Lubricants Corp			20-Aug-07		Houston,TX	Deployment	Water	Unannounced	20-Aug-07		20-Aug-07	Aug-07
30-Sep-07	Albemarle Corp			30-Sep-07		Pasadena,TX	Deployment	Land	Unannounced		30-Sep-07		Sep-07
11-Oct-07	ASARCO MASTER				11-Oct-07	Houston,TX	Deployment	Land	Unannounced				Oct-07
30-Nov-07	Phillips				30-Nov-07	Borger,TX	Table Top	Land	Announced		30-Nov-07		Nov-07
14-Nov-07	Oscer Renda Marine				14-Nov-07	Houston,TX	Deployment	Water	Unannounced	14-Nov-07	14-Nov-07	14-Nov-07	Nov-07
7-Dec-07	IPT				7-Dec-07	Irving,TX	Table Top	Land	Announced				Dec-07
	2006												
7-Mar-06	Julios Trucking	7-Mar-06				Pasadena TX	Exercise	Land	Unannounced				7-Mar-06
22-Mar-06	Palletized	22-Mar-06				Houston TX	Exercise	Land	Unannounced				22-Mar-06
13-Apr-06	Masters Reasource		13-Apr-06			Galveston Bay	Exercise	Water	Unannounced	13-Apr-06	13-Apr-06	13-Apr-06	13-Apr-06
29-Apr-06	Valero		29-Apr-06			Houston TX	Exercise	Water	Unannounced	29-Apr-06	29-Apr-06	29-Apr-06	29-Apr-06
13-May-06	Palletized		13-May-06			Angelica TX	Exercise	Land	Unannounced				13-May-06
10-Jul-06	Fox Metals			10-Jul-06		Houston TX	Exercise	Land	Unannounced				10-Jul-06
3-Aug-06	Texas Barge & Boat			3-Aug-06		Freeport TX	Exercise	Water	Announced	3-Aug-06	3-Aug-06	3-Aug-06	3-Aug-06
16-Oct-06	Kirby Marine				16-Oct-06	Houston TX	Exercise	Water	Unannounced	16-Oct-06	16-Oct-06	16-Oct-06	16-Oct-06
20-Oct-06	KTBU-TV				20-Oct-06	Houston TX	Exercise	Land	Unannounced				20-Oct-06

Garner Environmental Services, Inc. PREP Report

Notification JAN - MAR	Notification APR - JUN	Notification JUL - SEP	Notification OCT - DEC	LOCATION	DRILL TYPE	SPILL TYPE	Announced / Unannounced	SKIMMER DEPLOYMENT	BOOM DEPLOYMENT	BOAT DEPLOYMENT	LABOR DEPLOYMENT	
1/25/2012	Quarterly	Quarterly	Quarterly	Quarterly		Annually		Annually	Annually	Annually	Annually	Annually
La Marque Field Office												
2011												
8-Feb-11	NRC	8-Feb-11			Galveston and Houston	Deployment	Water	Unannounced		8-Feb-11	8-Feb-11	8-Feb-11
25-Feb-11	Valero	25-Feb-11			Port of Texas City	Deployment	Water	Unannounced		25-Feb-11	25-Feb-11	25-Feb-11
29-Apr-11	United Seafood		29-Apr-11		Bolivar Texas	Deploy/Table	Water	Unannounced		29-Apr-11	29-Apr-11	29-Apr-11
13-May-11	Sterling Chemicals		13-May-11		Port of Texas City	Deployment	Water	Unannounced		13-May-11	13-May-11	13-May-11
5-Jun-11	Tideport Distributing, Inc.		5-Jun-11		Galveston Isl	Spill	Land	Unannounced		5-Jun-11	5-Jun-11	11-Jun
8-Jun-11	GTI		8-Jun-11		Pelican Island	Deploy/Table	Water	Unannounced		8-Jun-11	8-Jun-11	11-Jun
16-Jun-11	U.S. Liquids		16-Jun-11		Pelican Island	Deployment	Water	Unannounced		16-Jun-11	16-Jun-11	16-Jun-11
24-Jun-11	Texas Barge & Boat		24-Jun-11		Freeport	Deploy/Table	Water	Unannounced		24-Jun-11	24-Jun-11	24-Jun-11
19-Aug-11	NuStar			19-Aug-11	Texas City	Deploy/Table	Water	Unannounced		19-Aug-11	19-Aug-11	19-Aug-11
18-Aug-11	Buffalo Marine Services			18-Aug-11	Texas City	Deploy	Water	Unannounced	18-Aug-11	18-Aug-11	18-Aug-11	19-Aug-11
6-Oct-11	LNC Trucking				San Leon	Spill	Land	Unannounced				6-Oct-11
24-Oct-11	Valero			24-Oct-11	Port of Texas City	Spill	Water	Unannounced			24-Oct-11	11-Oct
14-Dec-11	US Liquids			14-Dec-11	Pelican Island	Deploy/Table	Water	Announced		14-Dec-11	14-Dec-11	14-Dec-11
2010												
7-Jan-10	Valero	7-Jan-10			Texas City	Deployment	Water	Unannounced	7-Jan-10	7-Jan-10	7-Jan-10	7-Jan-10
25-Feb-10	TGLO	25-Feb-10			Freeport	Deployment	Water	Unannounced			25-Feb-10	25-Feb-10
14-May-10	BP Texas City		14-May-10		Texas City	Deployment	Water	Unannounced		14-May-10	14-May-10	14-May-10
21-May-10	Sterling Chemicals		21-May-10		Texas City	Deployment	Water	Unannounced		21-May-10	21-May-10	21-May-10
11-Jun-10	US Liquids		11-Jun-10		Galveston Texas	Deployment	Water	Unannounced		11-Jun-10	11-Jun-10	11-Jun-10
2009												
3-Mar-09	GTI	3-Mar-09			Pelican Isl	Deployment	Water	Unannounced		3-Mar-09	3-Mar-09	3-Mar-09
17-Jun-09	United Seafood		17-Jun-09		Bolialvar Texas	Deployment	Water	Unannounced		17-Jun-09	17-Jun-09	17-Jun-09
11-Jun-09	US Liquids		11-Jun-09		Pelican Isl	Deployment	Water	Unannounced		11-Jun-09	11-Jun-09	11-Jun-09
25-Aug-09	Garner Drill & BP TX City			25-Aug-09	Texas City, TX	Deployment	Water	Unannounced		25-Aug-09	25-Aug-09	25-Aug-09
5-Nov-09	US Liquids				Pelican Island	Deployment	Water	Unannounced		5-Nov-09	5-Nov-09	5-Nov-09
13-Nov-09	Nustar Energy (DK 16)			13-Nov-09	Texas City	Deployment	Water	Unannounced		13-Nov-09	13-Nov-09	13-Nov-09
13-Nov-09	Nustar Energy (DK 58)			13-Nov-09	Texas City	Deployment	Water	Unannounced		13-Nov-09	13-Nov-09	13-Nov-09
2008												
7-Jan-08	Allied Waste	7-Jan-08			Texas City	Deployment	Land	Unannounced				7-Jan-08
28-Jan-08	Riley Shatman Shipping	28-Jan-08			Texas City	Deployment	Water	Unannounced		28-Jan-08	28-Jan-08	28-Jan-08
6-Feb-08	Valero	6-Feb-08			Texas City	Deployment	Water	Unannounced	6-Feb-08	6-Feb-08	6-Feb-08	6-Feb-08
26-Mar-08	BP	26-Mar-08			Texas City	Deployment	Water	Unannounced		26-Mar-08	26-Mar-08	26-Mar-08
28-Mar-08	GTI	28-Mar-08			Pelican Isl	Deployment	Water	Unannounced		28-Mar-08	28-Mar-08	28-Mar-08
2-Apr-08	United Seafood		2-Apr-08		Bolivar TX	Deployment	Water	Unannounced		2-Apr-08	2-Apr-08	2-Apr-08
6-May-08	SCS, LCC		6-May-08		Galveston TX	Deployment	Water	Unannounced	6-May-08	6-May-08	6-May-08	6-May-08
6-Jun-08	Sterling Chemicals		6-Jun-08		Texas City	Deployment	Water	Unannounced		6-Jun-08	6-Jun-08	6-Jun-08
20-Jun-08	US Liquids		20-Jun-08		Pelican Island	Deployment	Water	Unannounced		20-Jun-08	20-Jun-08	20-Jun-08
8-Aug-08	BP			8-Aug-08	Texas City	Deployment	Land	Unannounced				Aug-08
16-Sep-08	BP			16-Sep-08	Texas City	Deployment	W	Unannounced		7-Nov-08	7-Nov-08	7-Nov-08
7-Nov-08	GTI			7-Nov-08	Pelical Isl	Deployment	W	Unannounced		7-Nov-08	7-Nov-08	7-Nov-08
5-Dec-08	US Liquids			5-Dec-08	Pelican Island	Deployment	W	Unannounced		5-Dec-08	5-Dec-08	5-Dec-08
2007												
31-Jan-07	Dow	31-Jan-07			Texas City	Deployment	Land	Unannounced				31-Jan-07
1-Feb-07	Horizon Maritime	1-Feb-07			Texas City	Deployment	Land	Unannounced				1-Feb-07
25-Mar-07	Amerco / South Shore Harbor	25-Mar-07			League City	Deployment	Water	Unannounced				25-Mar-07
6-Apr-07	Barwil Agencies		6-Apr-07		Bolivar, TX	Deployment	Water	Unannounced				6-Apr-07
31-May-07	U.S. Liquids		31-May-07		Galveston, TX	Deployment	Water	Unannounced		31-May-07	31-May-07	31-May-07
20-Jun-07	Wagner Oil Co.		20-Jun-07		Galveston, TX	Table Top	W / L	Announced				
27-Jun-07	Dobie Davis		27-Jun-07		Galveston, TX	Deployment	Water	Unannounced				27-Jun-07
18-Sep-07	Galveston Terminels			18-Sep-07	Galveston, TX	Deployment	Water	Unannounced		18-Sep-07	18-Sep-07	18-Sep-07
9-Oct-07	Sterling Chemicals			9-Oct-07	Texas City, TX	Table Top	Water	Announced				
24-Oct-07	Nustar Energy (DK 16 & 58)			24-Oct-07	Texas City, TX	Deployment	Water	Unannounced		24-Oct-07	24-Oct-07	24-Oct-07
2006												
28-Jan-06	Dow	28-Jan-06			Texas City, TX	Deployment	Land	Unannounced				28-Jan-06
31-Jan-06	Dow	31-Jan-06			Texas City, TX	Deployment	Land	Unannounced				31-Jan-06
8-Feb-06	T & S Fleet	8-Feb-06			Texas City, TX	Deployment	Land	Unannounced				8-Feb-06
10-Feb-06	Hulcher Services Inc.	10-Feb-06			Texas City, TX	Deployment	Land	Unannounced				10-Feb-06
18-Feb-06	Will Drett	18-Feb-06			Galveston, TX	Deployment	Water	Unannounced		18-Feb-06	18-Feb-06	18-Feb-06
1-Mar-06	Valero	1-Mar-06			Texas City, TX	Deployment	Water	Unannounced			1-Mar-06	1-Mar-06
27-Mar-06	Valero	27-Mar-06			Texas City, TX	Deployment	Land	Unannounced			27-Mar-06	27-Mar-06
2-May-06	Soulta Cho Bayou		2-May-06		Alvin, TX	Deployment	Water	Unannounced	2-May-06	2-May-06	2-May-06	2-May-06
24-Jun-06	Masters Resources		24-Jun-06		Galveston Bay	Deployment	Water	Unannounced	2-May-06	2-May-06	2-May-06	2-May-06
30-Jun-06	Meredith Management		30-Jun-06		Pelican Island TX	Deployment	Water	Unannounced		30-Jun-06	30-Jun-06	30-Jun-06
1-Jul-06	Valero			1-Jul-06	Texas City, TX	Deployment	Water	Unannounced		1-Aug-06	1-Aug-06	1-Aug-06
19-Jul-06	GTI			19-Jul-06	Pelican Island TX	Deployment	Water	Unannounced		19-Jul-06	19-Jul-06	19-Jul-06
1-Aug-06	Meridith Management			1-Aug-06	Pelican Island TX	Deployment	Water	Unannounced		1-Aug-06	1-Aug-06	1-Aug-06
1-Aug-06	Valero			1-Aug-06	Texas City, TX	Deployment	Water	Unannounced		1-Aug-06	1-Aug-06	1-Aug-06
25-Aug-06	Dow			25-Aug-06	Texas City, TX	Deployment	Land	Unannounced				25-Aug-06
31-Aug-06	MSRC			31-Aug-06	Gulf Of Mexico	Deployment	Water	Announced	31-Aug-06	31-Aug-06	31-Aug-06	31-Aug-06

Garner Environmental Services, Inc. PREP Report

28-Sep-06	Dow			28-Sep-06		Texas City, TX	Deployment	Land	Unannounced				28-Sep-06
31-Oct-06	Sterling				31-Oct-06	Texas City, TX	Table Top	Land	Announced				31-Oct-06
22-Nov-06	U.S. Liquids				22-Nov-06	Galveston TX	Deployment	Water	Unannounced		22-Nov-06	22-Nov-06	22-Nov-06
7-Dec-06	Soulita Cho Bayou				7-Dec-06	Alvin, TX	Table Top	W	Unannounced				

Garner Environmental Services, Inc. PREP Report

		Notification JAN - MAR	Notification APR - JUN	Notification JUL - SEP	Notification OCT - DEC	LOCATION	DRILL TYPE	SPILL TYPE	Announced / Unannounced	SKIMMER DEPLOYMENT	BOOM DEPLOYMENT	BOAT DEPLOYMENT	LABOR DEPLOYMENT
1/25/2012		Quarterly	Quarterly	Quarterly	Quarterly		Annually		Annually	Annually	Annually	Annually	Annually
Port Arthur Field Office													
	2011												
1/5/2011	Benchmark Oil & Gas	1/5/2011				Cow Bayou, Orange TX	Spill	Water	Unannounced	n/a	1/5/2011	1/5/2011	1/5/2011
3/4/2011	US Coast Guard	3/4/2011				Intracoastal Canal, Port Arthur	Spill	Water	Unannounced	n/a	3/4/2011	3/4/2011	3/4/2011
5/26/2011	Magnum Producing		5/27/2011			High Island, TX	Deployment	Water	Announced	n/a	5/26/2011	5/26/2011	5/26/2011
7/28/2011	Prater Steel			7/28/2011		Intracoastal Canal, Port Arthur	Spill	Water	Unannounced	n/a	n/a	7/28/2011	7/28/2011
8/10/2011	CITGO Products Pipeline			8/10/2011		Neches River, Port Neches	Deployment	Water	Announced	n/a	8/10/2011	8/10/2011	8/10/2011
8/25/2011	Motiva Enterprises			8/25/2011		Port Arthur, TX	Spill	Water	Unannounced	n/a	n/a	8/25/2011	8/25/2011
8/21/2011	Motiva Enterprises			8/21/2011		Port Arthur, TX	Spill	Water	Unannounced	n/a	n/a	8/21/2011	8/21/2011
9/27/2011	Exxon Mobil Pipeline			9/27/2011		Taylors Bayou, Port Arthur	Deployment	Water	Unannounced	n/a	9/27/2011	9/27/2011	9/27/2011
9/20/2011	Kingfisher Marine			9/20/2011		Cameron, LA	Spill	Water	Unannounced	n/a	n/a	9/20/2011	9/20/2011
9/21/2011	Luchs International			9/23/2011		Nederland, TX	Spill	Water	Unannounced	n/a	9/21/2011	9/21/2011	9/21/2011
10/14/2011	Dupont SRW				10/14/2011	Adams Bayou, Orange TX	Spill	Water	Unannounced	n/a	n/a	10/14/2011	########
	2010												
5-Jan-10	Motiva Enterprises LLC	5-Jan-10				Port Arthur, TX	Deployment	Water	Unannounced		5-Jan-10		5-Jan-10
1-Feb-10	Gallagher Marine Systems	1-Feb-10				Port Arthur, TX	Deployment	Water	Unannounced	1-Feb-10	1-Feb-10	1-Feb-10	1-Feb-10
16-Mar-10	Burton Ship Yard	16-Mar-10				Beaumont, TX	Deployment	Water	Unannounced		16-Mar-10	16-Mar-10	16-Mar-10
1-Apr-10	The Obrein Group		1-Apr-10			Nederland, TX	Deployment	Water	Unannounced		1-Apr-10	1-Apr-10	1-Apr-10
14-May-10	Evonik, Inc.		14-May-10			Orange, TX	Deployment	Land	Unannounced		14-May-10	14-May-10	14-May-10
16-Jun-10	Galveston Bay Energy		16-Jun-10			Anahuac, TX	Deployment	Water	Unannounced		16-Jun-10	16-Jun-10	16-Jun-10
22-Jun-10	Oil Mop		22-Jun-10			Sour Lake, TX	Deployment	Land	Unannounced			22-Jun-10	22-Jun-10
7-Jul-10	Patriot Contract Services			7-Jul-10		Beaumont, TX	Deployment	Water	Unannounced		7-Jul-10	7-Jul-10	7-Jul-10
28-Sep-10	Exxon Mobil Chemical			28-Sep-10		Beaumont, TX	Drill	Water	Announced	28-Sep-10	28-Sep-10	28-Sep-10	28-Sep-10
12-Oct-10	Galveston Bay Energy				12-Oct-10	Anahuac, TX	Deployment	Water	Unannounced			12-Oct-10	12-Oct-10
18-Oct-10	Texas Environmental				18-Oct-10	Port Neches, TX	Deployment	Water	Unannounced		18-Oct-10	18-Oct-10	18-Oct-10
5-Oct-10	Huntsman Petrochemical				5-Oct-10	Port Neches, TX	Deployment	Water	Unannounced			5-Oct-10	5-Oct-10
	2009												
9-Mar-09	Jefferson County DD7	9-Mar-09				Port Arthur, TX	Deployment	Land	Unannounced		9-Mar-09	9-Mar-09	Mar-09
24-Feb-09	Dupont SRW	24-Feb-09				Orange, TX	Deployment	Water	Unannounced		24-Feb-09	24-Feb-09	Feb-09
9-Mar-09	Dupont SRW	9-Mar-09				Orange, TX	Deployment	Water	Unannounced		9-Mar-09	9-Mar-09	Mar-09
6-Apr-09	Dupont SRW		6-Apr-09			Orange, TX	Deployment	Water	Unannounced		6-Apr-09	6-Apr-09	Apr-09
29-Apr-09	Dupont SRW		29-Apr-09			Orange, TX	Deployment	Water	Unannounced		29-Apr-09	29-Apr-09	Apr-09
7-Jul-09	Patriot Contract Services			7-Jul-09		Beaumont, TX	Deployment	Water	Unannounced		7-Jul-09	7-Jul-09	Jul-09
16-Jul-09	Magnum Producing			16-Jul-09		High Island, TX	Drill	Water	Announced	16-Jul-09	16-Jul-09	16-Jul-09	Jul-09
22-Jul-09	Crowder Gulf			22-Jul-09		Port Arthur, TX	Deployment	Water	Unannounced		22-Jul-09	22-Jul-09	Jul-09
21-Oct-09	ExxonMobil Pipeline				21-Oct-09	Port Arthur, TX	Deployment	Water	Unannounced		21-Oct-09	21-Oct-09	Oct-09
1-Oct-09	United States Coast Guard				1-Oct-09	Sabine Pass, TX	Deployment	Water	Announced		1-Oct-09	1-Oct-09	1-Oct-09
	2008												
20-Feb-08	General Maritime NY	20-Feb-08				Port Arthur, TX	Deployment	Water	Unannounced		20-Feb-08	20-Feb-08	20-Feb-08
22-Feb-08	Lighthouse Shipping Agency	22-Feb-08				Beaumont, TX	Deployment	Water	Unannounced		22-Feb-08	22-Feb-08	22-Feb-08
8-Apr-08	DynMcDermott	5-Mar-08				Hackberry, LA	Deployment	Water	Announced		8-Apr-08	8-Apr-08	8-Apr-08
29-May-08	Huntsman Petrochemical		29-May-08			Port Neches, TX	Deployment	Water	Announced		29-May-08	29-May-08	29-May-08
3-Jun-08	Harlex		11-May-08			Port Arthur, TX	Table Top		Announced				
16-Jul-08	USCG		20-May-08			Port Arthur, TX	Deployment	Water	Announced	16-Jul-08	16-Jul-08	16-Jul-08	Jul-08
13-Nov-08	Dupont				13-Nov-08	Orange, TX	Deployment	Water	Unannounced		13-Nov-08	13-Nov-08	Nov-08
18-Nov-08	Ballard Exploration Co.				18-Nov-08	Johnsons Bayou, LA	Deployment	Water	Unannounced	18-Nov-08	18-Nov-08	18-Nov-08	Nov-08
	2007												
7-Jan-07	U.S.C.G.	7-Jan-07				Motiva Dock	Deployment		Unannounced		7-Jan-07	7-Jan-07	7-Jan-07
7-Feb-07	Cameron Surface Systems	7-Feb-07				Liberty, TX	Deployment		Unannounced				7-Feb-07
20-Mar-07	Investa	20-Mar-07				Orange, TX	Deployment		Unannounced				20-Mar-07
27-Mar-07	Martin Transport	27-Mar-07				Lake Charles, LA	Table Top		Announced				
10-Apr-07	Oiltanking		10-Apr-07			Beaumont	Deployment	Water	Unannounced	10-Apr-07	10-Apr-07		10-Apr-07
17-Apr-07	Entergy Sabine		17-Apr-07			Bridge City	Deployment		Unannounced			17-Apr-07	17-Apr-07
22-May-07	Huntsman		22-May-07			Port Neches	Deployment	Water	Announced				22-May-07
28-Jun-07	Explorer Pipeline		28-Jun-07			Hankamer	Deployment		Unannounced	28-Jun-07	28-Jun-07		28-Jun-07
11-Jul-07	Valero			11-Jul-07		Port Arther	Deployment	Water	Unannounced			11-Jul-07	11-Jul-07
29-Aug-07	Sunoco DOE			29-Aug-07		Nederland	Deployment	Water	Unannounced		29-Aug-07	29-Aug-07	29-Aug-07
29-Sep-07	Sunoco			29-Sep-07		Nederland	Deployment	Water	Unannounced				29-Sep-07
10-Oct-07	DynMcDermott				10-Oct-07	Hackberry La.	Deployment	Water	Unannounced		10-Oct-07	10-Oct-07	10-Oct-07
18-Oct-07	Shell Pipeline				18-Oct-07	Port Arthur	Deployment	Land	Unannounced				18-Oct-07
18-Oct-07	TPIC				18-Oct-07	Port Arthur	Deployment	Water	Unannounced		18-Oct-07	18-Oct-07	18-Oct-07
	2006												
26-Jan-06	Masters Resources	26-Jan-06				Trinity River Bay	Deployment	Water	Unannounced		26-Jan-06	26-Jan-06	Jan-06
15-Feb-06	USCG	15-Feb-06				Fina Anchorage	Deployment	Water	Announced		15-Feb-06	15-Feb-06	Feb-06
19-Feb-06	Sneed Shipbuilding	19-Feb-06				Orange, TX	Deployment	Water	Unannounced	19-Feb-06	19-Feb-06	19-Feb-06	Feb-06
15-Mar-06	DynMcDermott	15-Mar-06				Big Hill	Deployment	Water	Announced				15-Mar-06
7-Apr-06	BASF/FINA		7-Apr-06			Groves TX	Deployment	Land	Unannounced				7-Apr-06
17-Apr-06	Gridall Ameristeel		17-Apr-06				Table Top	Land	Announced				17-Apr-06
7-May-06	BASF/FINA		7-May-06			Groves TX	Deployment	Land	Unannounced				7-May-06
21-Jun-06	Burk Kreiths Marine		21-Jun-06			Orange, TX	Deployment	Water	Unannounced				21-Jun-06
21-Jun-06	MSRC		21-Jun-06			Lake Charles La.	Deployment	Water	Unannounced				21-Jun-06

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28-Jul-06	Brinks c/o Cura		28-Jul-06			Beaumont TX.	Deployment	Land	Unannounced				28-Jul-06
16-Aug-06	Entergy		16-Aug-06			Bridge City, TX	Table Top	Land	Announced				16-Aug-06
31-Aug-06	Groendyke c/o EMI		31-Aug-06			Louisiana	Deployment	Land	Unannounced				31-Aug-06
3-Oct-06	Enterprise Transportation				3-Oct-06	Chambers County	Deployment		Unannounced				3-Oct-06
16-Oct-06	Shell Pipeline				16-Oct-06	Shell Pipeline PA.	Deployment		Unannounced		16-Oct-06		16-Oct-06
25-Oct-06	Investa				25-Oct-06	Investa / Orange	Deployment		Unannounced				25-Oct-06
15-Nov-06	Canal Barge Lines				25-Nov-06	Motiva / PA	Deployment		Unannounced				15-Nov-06
3-Dec-06	E S & H				3-Dec-06	Texas Petroleum	Deployment		Unannounced		3-Dec-06	3-Dec-06	3-Dec-06
30-Dec-06	Sunoco Logistics				30-Dec-06	Sour Lake	Deployment		Unannounced	30-Dec-06	30-Dec-06		30-Dec-06

Garner Environmental Services, Inc. PREP Report



Note: Dates shown above are the dates events took place.

MILLER ENVIRONMENTAL SERVICES, INC.
2011 SPILL RESPONSE LOG

DATE	LOCATION	EQUIPMENT
3/9/11 11-0195	INGLESIDE, TX	1- RESPONSE BOAT 5- PERSONNEL 500' – 18" CONT. BOOM
6/2/11 11-0423	INGLESIDE, TX	1- RESPONSE BOAT 800' – 18"CONT. BOOM 4 - PERSONNEL
6/20/11 11-0449	INGLESIDE, TX	1- RESPONSE BOAT 1000' – 18"CONT. BOOM 5 – PERSONNEL
9/30/11 11-0666	INGLESIDE, TX	1 – RESPONSE BOAT 1000' – 18" CONT. BOOM 7 - PERSONNEL

Oil Spill Removal Organization

SWS Environmental Services

OSRO No. 247

SWS Environmental Services
600 Grand Panama Blvd
Suite 200
Panama City Beach, Florida 32407
1-877-742-4215
www.swsenvironmental.com
July 2011

ENVIRONMENTAL SERVICES

EQUIPMENT DEPLOYMENT REPORT

Documentation of SWS Environmental Services equipment used during spill response, drills or training.

PLEASE PROVIDE THE FOLLOWING INFORMATION UPON COMPLETION OF THE PROJECT

PROJECT DATE(S): July, 20, 2011 SWS JOB#: PD3-106-0427

NAME OF SUPERVISOR: Richard Kell PHONE/FAX:270-444-8003

RESPONSIBLE PARTY: Yearly Spill Drill SERVICE CENTER Paducah, Ky.

MSO/COTP ZONELouisville, Ky.

ENVIRONMENT (CIRCLE ONE)

PROTECTED SHELTERED {UNSHELTERED}

GEOGRAPHICAL DESCRIPTION (FACILITY, BODY OF WATER, MILES OFFSHORE)
Ohio River between mile 934.5 and 936

EQUIPMENT DEPLOYED [Types of boom, boats, temporary storage devices, Command/Communications Center.
2-28' work boats, 1-26' work boat, 1-24' work boat, MSRC boat and barge with skimmer, 1300' 18" containment boom, The Command Center was at the Paducah Civic Center for the Table top portion of the drill.

PERSONNEL: [List by category]
Supervisors- 2, Foreman- 1, Boat Operator- 5, Technician-9

ADDITIONAL REMARKS:
This was a Table Top Drill and Equipment Deployment exercise put on for several of the local industries required to have these drills. The Coast Guard and other local government agencies play a part in the drill.

I certify that: 1) The equipment is in good working order and was properly operated in the environment indicated;
2) Involved personnel demonstrated competency in deployment and operation of the equipment.

July, 20, 2011 Richard Kell

DATE PRINT NAME OF SUPERVISOR SUPERVISOR SIGNATURE

This report is used for crediting SWS's client response plan holders for OSRO equipment deployment under the Preparedness Response Exercise Program (PREP), all deployments, wether during actual spill response, training or exercise / drills must be Properly documented. SWS must certify that: 1) Response equipment is operational; 2) Personnel are capable of deploying and

Eagle-SWS - OSRO Number: 247

COTP Zone:	Operating Environment	Facility AMMPD	Facility WCD1	Facility WCD2	Facility WCD3	Vessel AMMPD	Vessel WCD1	Vessel WCD2	Vessel WCD3
Corpus Christi - DISTRICT 8	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Houston - DISTRICT 8	River or Canal	-	-	Yes	Yes	Yes	Yes	Yes	Yes
Jacksonville - DISTRICT -	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jacksonville - DISTRICT -	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jacksonville (Port Canaveral, FL) - DISTRICT -	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jacksonville (Port Canaveral, FL) - DISTRICT -	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Key West - DISTRICT 7	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Key West - DISTRICT 7	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lower Mississippi - DISTRICT 8	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lower Mississippi - DISTRICT 8	Inland	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes
Miami - DISTRICT -	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Miami - DISTRICT -	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mobile - DISTRICT 8	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mobile - DISTRICT 8	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mobile(Panama City, FL) - DISTRICT 8	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mobile(Panama City, FL) - DISTRICT 8	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ohio Valley - DISTRICT 8	River or Canal	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes
Ohio Valley - DISTRICT 8	Inland	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes
Paducah - DISTRICT 8	River or Canal	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes
Paducah - DISTRICT 8	Inland	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes
Port Arthur - DISTRICT 8	River or Canal	-	-	Yes	Yes	Yes	Yes	Yes	Yes
Savannah - DISTRICT -	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Savannah - DISTRICT -	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
St. Petersburg - DISTRICT 7	River or Canal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
St. Petersburg - DISTRICT 7	Inland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

TAS ENVIRONMENTAL SERVICES, LP

2011 - PREP Report

Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
1/3/11		Sherdian, AR		Transport	diesel fuel	1			X		X
1/10/11		Shreveport, LA		Transport	diesel fuel	1					X
1/17/11		Prescott,AR		Transport	diesel fuel	1		X	X		X
1/17/11		Frierson, LA		Transport	hydraulic oil	1					X
1/19/11		Natichitoches, LA		Transport	diesel fuel	2.5			X		X
1/21/11		Shreveport, LA		Transport	motor oil	95		X	X		X
1/23/11		Mansfield, LA		Facility	XW-14	2.5					X
1/28/11		Frierson, LA		Facility	Saltwater	250			X		X
1/31/11		Shreveport, LA		Transport	diesel fuel	1					X
2/3/11		Keatchi, LA		Transport	drilling mud	50		X			X
2/8/11		LR,AR		Transport	diesel fuel	1					X
2/8/11		Jefferson,TX		Transport	diesel fuel	1			X		X
2/8/11		Shreveport, LA		Transport	motor oil	95		X	X		X
2/10/11		Converse, LA		Facility	gel spill	3		X	X		X
2/11/11		Texarkana,AR		Transport	Process oil	0.5		X	X		X
2/16/11		Hope,AR		Transport	diesel fuel	2			X		X
2/17/11		Pine Bluff, AR		Facility	cutting oil	167		X			X
2/19/11		Benson, LA		Transport	Oil based drilling mud	50		X	X		X
2/21/11		Homer, LA		Transport	Saltwater	50					X
2/21/11		Frierson, LA		Transport	hydraulic oil	1					X
2/25/11		Benton, AR		Transport	gasoline	48			X		X
2/25/11		Frierson, LA		Facility	Saltwater	250			X		X
2/28/11		Mansfield, LA		Transport	XW-14	2.5					X
3/1/11		Natichitoches, LA		Transport	diesel fuel	2.5			X		X
3/4/11		Pangburn, AR		Facility	friction reducet	8		X			X
3/4/11		Converse, LA		Transport	gel spill	3		X	X		X
3/8/11		Texarkana,TX		Transport	gasoline	7		X	X		X
3/8/11		Logansport, LA		Transport	diesel & oil			X	X		X
3/11/11		Hope,AR		Transport	diesel fuel	1.5			X		X
3/11/11		Homer, LA		Facility	Saltwater	50					X
3/14/11		Frierson, LA		Transport	diesel & oil				X		X
3/15/11		Winfield,TX		Transport	diesel fuel	3.3			X		X
3/21/11		Benson, LA		Transport	Oil based drilling mud	50		X	X		X
4/9/11		New Boston,TX		Transport	diesel fuel	2			X		X

06/01/11	[redacted]	Big Wells, TX		ER	Corrosion Inhib	2					X
06/10/11		San Antonio, TX		ER	Jet Fuel	1					X
06/14/11		Fair Oaks, TX		ER	Mineral Oil	1					X
06/27/11		San Antonio, TX		ER	Diesel Fuel	1					X
06/27/11		Corrizo Springs		ER	Hydraulic Oil	1/2 bbl					X
06/30/11		San Antonio, TX		ER	Diesel Fuel	1/2 bbl					X
07/03/11		Copperas Cove		ER	Diesel Fuel	1.5					X
07/10/11		San Antonio, TX		ER	Jet Fuel	4					X
07/20/11		New Braunfels,		ER	Diesel Fuel	4					X
07/22/11		San Antonio, TX		ER	Solvent/Water	1-1/2 bbl					X
07/24/11		Victoria, TX		ER	Motor Oil	4.5 bbl					X
07/27/11		Catarine, TX		ER	Diesel fuel	4					X
07/28/11		Cheapside, TX		ER	Hyd. Acid	275					X
08/02/11		San Antonio, TX		ER	#4 Fuel Oil	4					X
08/03/11		Yoakum, TX		ER	Crude Oil	1/2 bbl					X
08/04/11		San Antonio, TX		ER	Ethylene Glycol	1					X
08/06/11		San Antonio, TX		ER	Diesel Fuel	1/2 bbl					X
08/11/11		Rosanky, TX		SCH	Crude Oil	1/2 bbl					X
08/30/11		Charlotte, TX		ER	Hyd. Acid	75					X
08/30/11		San Antonio, TX		ER	Diesel Fuel	2					X
09/02/11		Three Rivers, TX		ER	Pigging Sludge	2.5					X
09/06/11		San Antonio, TX		ER	Red Dye Diesel	2					X
09/09/11		George West,TX		ER	Hydraulic Oil	2					X
09/23/11		Austin, Tx.		SCH	Transmission Fluid	1/4 bbl					X
09/25/11		Tilden, Texas		ER	Hyd. Acid	150					X
10/03/11		Kenedy, TX		SCH	Amine Solution	1					X
10/18/11		Castle Hill, TX		ER	Diesel Fuel	2			X		X
10/29/11		New Braunfels,		ER	Diesel Fuel	2			X	X	X
11/14/11		San Antonio, TX		ER	Liquid Solvent	8					X
11/30/11		San Antonio, TX		ER	Fire Foam	2			X		X
12/11/11		Alice, TX.		ER	Diesel Fuel	20			X		X

4/9/11		Coushatta, LA		Transport	diesel fuel	2.5			X		X
4/14/11		Okolona, AR		ER	motor oil	3.5		X	X		X
4/22/11		Hooks,TX		Transport	diesel fuel	1			X		X
4/26/11		Shreveport, LA		Transport	Liquid Asphalt	60					X
5/1/11		Carthage, TX		Transport	diesel fuel	1			X		X
5/2/11		Shreveport, LA		Transport	diesel fuel	1.5			X		X
5/4/11		Mansfield, LA		Facility	Amine	35		X	X		X
5/6/11		Mount Vernon,TX		Facility	hydraulic oil	1			X		X
5/12/11		Longview, TX		Equip.Roll O	hydraulic oil	1			X		X
5/20/11		Kickapoo, LA		Transport	Caustic	7.5					X
5/21/11		Mandeville,AR		Transport	diesel fuel	2.5			X		X
5/24/11		Logansport, LA		Transport	Cross-link gel	80					X
6/1/11		Red Hill,TX		Transport	diesel fuel	3			X		X
6/4/11		Boswell,OK		Equip.Roll O	diesel fuel	1			X		X
6/6/11		Hope,AR		Transport	motor oil	1		X	X		X
6/7/11		Domino,TX	Boom D	Facility					X		X
6/7/11		Ringgold, LA		Transport	drilling mud	2					X
6/9/11		Shreveport, LA		Transport	Liquid Asphalt	60					X
6/10/11		Serapta, LA		Facility	Saltwater	150		X			X
6/16/11		Mooringsport, LA		Facility	crude oil	2.5					X
6/16/11		Mansfield, LA		Transport	Amine	35		X	X		X
6/17/11		Kickapoo, LA		Transport	Caustic	7.5					X
6/23/11		Shreveport, LA		Transport	diesel fuel	1.5			X		X
6/23/11		Serapta, LA		Facility	Saltwater	150		X			X
6/26/11		San Augustine, TX		Transport	diesel fuel	2			X		X
6/27/11		Logansport, LA		Facility	Cross-link gel	80					X
7/1/11		Coushatta, LA		Transport	diesel fuel	2.5			X		X
7/13/11		Russellville, AR		Facility	cooking oil	12			X		X
7/15/11		Mena,AR		Transport	diesel fuel	2			X		X
7/18/11		Keatchi, LA		Facility	drilling mud	50		X			X
7/27/11		Mooringsport, LA		Facility	crude oil	2.5					X
7/29/11		San Augustine, TX		Remediatio	raw sewage	80		X	X	X	X
8/5/11		Clinton, AR		Facility	hydraulic oil	2		X			X
8/8/11		Mooringsport, LA		Facility	crude oil	2					X
8/11/11		Hot Springs, AR		Transport	Jet A Fuel	3.5			X		X
8/13/11		Zwolie, LA		Transport	diesel fuel	1					X
8/13/11		Zwolie, LA		Transport	diesel fuel	1					X
8/30/11		Ringgold, LA		Transport	Saltwater	120			X		X

8/30/11	[redacted]	Ringgold, LA		Facility	Saltwater	120			X		X
9/7/11		Ringgold, LA		Facility	drilling mud	2					X
9/9/11		Alexander, AR		Transport	diesel fuel	1					X
9/9/11		Shreveport, LA		Facility	Triazene	5					X
9/9/11		Shreveport, LA		Facility	Triazene	5					X
9/12/11		Frierson, LA		Transport	coolant & motor oil	2			X		X
9/12/11		Frierson, LA		Transport	coolant & motor oil	2			X		X
9/16/11		Sheridan, AR		Transport	diesel fuel	2.3		X			X
9/26/11		Morrilton, AR		Transport	solvent	2					X
9/30/11		Shreveport, LA		Transport	diesel fuel	2					X
9/30/11		Mooringsport, LA		Facility	crude oil	2					X
9/30/11		Shreveport, LA		Transport	diesel fuel	2					X
10/10/11		Bossier City, LA		Facility	diesel fuel	2					X
10/10/11		Bossier City, LA		Facility	diesel fuel	2					X
10/11/11		Kickapoo, LA		Transport	drilling mud	45		X			X
10/11/11		Bossier City, LA		Facility	waste fuel	6					X
10/11/11		Kickapoo, LA		Transport	drilling mud	45		X			X
10/11/11		Bossier City, LA		Facility	waste fuel	6					X
10/22/11		Fulton,AR		Transport	diesel fuel	1			X		X
10/25/11		Texarkana,AR		Transport	diesel fuel	1			X		X
10/26/11		Sheridan, AR		Transport	diesel fuel	2			X		X
10/28/11		Sheridan, AR		Transport	diesel fuel	1					X
11/14/11		Diana, TX		Facility	mineral oil	2			X		X
11/29/11		Shreveport, LA		Transport	diesel fuel	1					X
11/29/11		Shreveport, LA		Transport	diesel fuel	1					X
12/5/11		Bloomburg,TX		Transport	diesel fuel	2			X		X
12/16/11		Texarkana,AR		Transport	diesel fuel	2			X		X

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Date	Company	Location	Drill Typ	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
1/4/11		Carrollton, TX	ER	ransporatic	Diesel	2		X	X		X
1/4/11		Carrollton, TX	ER	ansportati	Diesel	2.5			X		X
1/4/11		Grapevine, TX	ER	ansportati	Ethylene Glycol	7.5					X
1/6/11		Garland, TX	ER	ansportati	PCB MineralOil	3.5					X
1/6/11		Garland, TX	ER	Facility	Mineral Oil	3.5					X
1/11/11		Grapevine, TX	ER	ransporatic	Ethlylene Glycol	7					X
1/16/11		Terrell	ER	ransporatic	Diesel	1			X		X
1/16/11		Terrell, TX	ER	ansportati	Diesel	1.3			X		X
1/18/11		Bremond, TX	ER	ansportati	Motor Oil	1.5					X
1/19/11		Grapevine, TX	ER	ansportati	Diesel	1.5					X
1/19/11		Grapevine, TX	ER	ansportati	Diesel	1.5					X
1/20/11		Colbert, OK	ER	ansportati	Paint Related	1.5					X
1/21/11		Colbert, OK	ER	ansportati	Polyphase PW40	3					X
1/26/11		Forney, TX	ER	Facility	Sodium Hypochlorite	15		X			X
1/26/11		Forney, TX	ER	Facility	Bleach	15.5		X			X
1/30/11		Benbrook, TX	ER	ansportati	Diesel	2					X
2/3/11		McKinney	ER	Facility	Anti-Freeze	2.5					X
2/3/11		Cresson, TX	ER	ansportati	oil/water	23		X			X
2/3/11		McKinney, TX	ER	Facility	Anti-Freeze	3					X
2/5/11		Garland, TX	ER	ansportati	Diesel	2					X
2/5/11		Garland, TX	ER	ansportati	Diesel	2					X
2/6/11		Frisco, TX	ER	ansportati	Diesel	2					X
2/8/11		Grapevine, TX	ER	ranspotatic	Gasoline/water	214		X	X		X
2/11/11		Dallas, TX	ER	ansportati	Red Dye, Diesel, Gas	87		X	X		X
2/18/11		Fort Worth, TX	ER	ansportati	Diesel	1.5					X
2/18/11		Cleburne, TX	ER	ansportati	Diesel	2		X			X
2/22/11		Melissa, TX	ER	ansportati	Diesel	5					X
2/23/11		Arlington, TX	ER	ansportati	Diesel	1.5					X
2/25/11		Irving, TX	ER	ransporatic	Benzyl Salicylate	1					X
3/2/11		Krum, TX	ER	ansportati	Diesel	4.5					X
3/2/11		Cleburne, TX	ER	Facility	Hydrocholic Acid	1.5		X			X
3/2/11		Krum, TX	ER	Facility	Diesel	1					X
3/7/11		Godley, TX	ER	ansportati	Diesel	1.5					X
3/10/11		Decatur,TX	ER	Facility	Corr. Inhibitor	1					X

3/14/11	[redacted]	Sherman, TX	ER	ansportati	Diesel	1					X
3/24/11		San Antonio, TX	Spill Dril	Pipeline	Diesel	3					
4/4/11		Mansfield, TX	ER	ansportati	Diesel	1					X
4/12/11		Sunnyvale, TX	ER	ansportati	Pesticide	1					X
4/13/11		Burleson, TX	ER	ansportati	Diesel	2.5			X		X
4/20/11		Collinsville, TX	ER	ansportati	Diesel	4			X		X
4/20/11		Alvarado, TX	ER	Facility	Waste Oil	1			X		X
4/22/11		Milford, TX	ER	ansportati	Diesel	1					X
4/29/11		Duncanville, TX	ER	ansportati	Motor Oil	1.3					X
5/18/11		Lewisville, TX	ER	ansportati	Mineral Oil	1					X
5/18/11		Lewisville, TX	ER	Facility	Mineral Oil	1					X
5/23/11		Fort Worth, TX	ER	ansportati	Diesel	2		X	X		X
5/24/11		Crowley, TX	ER	ansportati	Diesel	2			X		X
5/25/11		Quinlan, TX	ER	Facility	Mineral Oil	1			X		X
5/26/11		Fort Worth, TX	ER	ansportati	Diesel	2			X		X
5/27/11		Rhome, TX	ER	ansportati	Diesel	5					X
5/31/11		Mertens, TX	ER	Facility	Transmix	1			X		X
5/31/11		Anna, TX	ER	Facility	Diesel	29.5			X		X
6/3/11		Irving, TX	ER	ansportati	Diesel	1.5					X
6/4/11		Hurst, TX	ER	Facility	Cooking Oil	5		X			X
6/8/11		Lewisville, TX	ER	Facility	Mineral Oil	2.5					X
6/9/11		Justin, TX	ER	Facility	Mineral Oil	1.3					X
6/10/11		Dallas, TX	ER	Facility	Vinegar	5					X
6/14/11		Dallas, TX	ER	ansportati	Bellacide	1					X
6/16/11		Burleson, TX	ER	ansportati	Diesel	1					X
7/11/11		Cleburne, TX	ER	Facility	HCL	1					X
7/12/11		Fort Worth, TX	ER	Facility	Ethanol	7.5					X
7/14/11		Flower Mound, TX	ER	Facility	Salt Water	400		X			X
7/14/11		McKinney, TX	ER	Facility	Mineral Oil	2		X			X
7/18/11		Montague Co., TX	ER	Facility	Diesel	5			X		X
7/23/11		Rhome, TX	ER	Facility	Mineral Oil	1					X
7/27/11		Balch Springs, TX	ER	ansportati	Diesel	1.5					X
7/29/11		Irving, TX	ER	ansportati	Resin	2					X
8/1/11		Colorado City, TX	ER	Facility	Crude Oil	40.5					X
8/2/11		Fort Worth, TX	ER	ansportati	Diesel	1.5		X	X		X
8/4/11		Fort Worth, TX	ER	ansportati	Diesel	2.3					X
8/23/11		Burleson, TX	ER	Facility	Flam Liquid	13					X
8/26/11		Fort Worth, TX	ER	ansportati	Diesel	4					X

9/15/11	[redacted]	Dallas, TX	ER	Facility	oil/water	1.5		X			X
9/21/11		Lone Oak, TX	ER	ransportati	Diesel	1					X
9/29/11		Fort Worth, TX	ER	ransportati	Hydraulic Oil	4			X		X
10/14/11		White Settlement	ER	ransportati	Friction Reducer	1.5					X
10/24/11		Arlington, TX	ER	ransportati	Diesel	1			X		X
11/7/11		Bedford, TX	ER	Facility	Water/Tar	1		X	X		X
11/25/11		Arlington, TX	ER	ransportati	Diesel	2.5					X
11/26/11		Fort Worth, TX	ER	ransportati	Diesel	2					X
12/1/11		Stroud, OK	Spill Dril	Facility	Crude Oil	5100					
12/7/11		Dallas, TX	ER	ransportati	Resin	4					X
12/11/11		Fort Worth, TX	ER	ransportati	Diesel	2					X
12/14/11		Fort Worth, TX	Spill Dril	Rail Car	Ethanol	51,000		X	X	X	X

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Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
01/01/11		Laredo, TX		ER	Hyd. Acid	1					X
01/06/11		Uvalde, TX		ER	Motor Oil	1			X		X
01/11/11		Kerrville, TX		ER	Cayenne Puree	3					X
01/25/11		San Antonio, TX		ER	Diesel Fuel	1					X
01/28/11		Austin, Tx.		ER	Oil base solvent	1			X		X
01/28/11		Alice, TX.		ER	LoSurf 300D	4		X			X
02/06/11		Schertz, TX		ER	Motor Oil	1/2 bbl			X		X
02/07/11		Laredo, TX		ER	Motor Oil	1/2 bbl					X
02/07/11		Houston, TX		ER	Red Oil Dye	400					X
02/09/11		Belton, Tx.		ER	Diesel	2					X
02/09/11		Giddings Tx.		ER	Diesel	2			X		X
02/10/11		Bastrop Tx.		ER	Turbine Oil	9		X	X		X
02/15/11		Boerne, TX		ER	Diesel Fuel	1			X		X
02/18/11		San Antonio, TX		ER	Hydraulic Oil	1/2 bbl					X
02/22/11		Austin, Tx.		ER	Used Motor Oil	1/2 bbl					X
02/23/11		Sonora, TX		SCH	Diesel Fuel	1					X
02/24/11		Texas City, Tx.		ER	Unleaded Gas	6000		X	X	X	X
03/06/11		Troy, Tx.		ER	Diesel	1/2 bbl		X			X
03/18/11		Junction, TX		SCH	Diesel Fuel	2					X
03/22/11		Del Valle, TX		ER	Diesel Fuel	24		X			X
03/23/11		Gonzales, TX		ER	Crude Oil	50					X
03/24/11		Yorktown, TX		ER	Diesel fuel	55			X		X
03/31/11		Uvalde, TX		ER	Diesel fuel	1.5					X
04/08/11		Cheapside, TX		ER	Brine Water	45		X			X
04/09/11		Burnet, Tx.		ER	Diesel	1					X
04/14/11		Kyle, Tx.		SCH	Mineral Oil	1/2 bbl					X
04/18/11		Elmendorf, TX		ER	Gear Oil	1 1/2					X
04/19/11		Georgetown,TX		ER	Unleaded Gas	70		X	X		X
04/20/11		San Antonio, TX		ER	Unleaded Gas	172					X
04/21/11		Austin, Tx.		SCH	Diesel fuel	1					X
05/04/11		Big Wells, TX		ER	Diesel Fuel	4					X
05/17/11		Pleasanton, TX		ER	Diesel Fuel	2			X		X
05/18/11		Llano, Tx.		ER	Diesel	1/2 bbl					X
05/31/11		San Antonio, TX		ER	Corn Syrup	3					X

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Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
01/08/10	[redacted]	Duncanville, TX	ER	Transport	Gasoline	2.5			X		X
01/08/10		San Antonio, TX	ER	Transport	Diesel	1					X
01/14/10		Fort Worth, TX	ER	Transport	Animal Fat (Grease)	unknown		X	X		X
01/14/10		Haynesville, LA	ER	Transport	Condensate	218		X	X		X
01/18/10		Irving, TX	ER	Transport	Diesel	4		X			x
01/18/10		Austin, TX	ER	Transport	Motor oil	4.5		X	X		X
01/21/10		Bossier City, LA	ER	Transport	Sodium Hydroxide	6.5		X	X		X
01/23/10		Denton, TX	ER	Transport	Diesel	2		X	X		X
01/27/10		Victoria, TX	ER	Transport	Diesel	1					X
01/28/10		Grand Prairie, TX	ER	Transport	Diesel	3		x			x
01/29/10		Knippa, TX	ER	Transport	Diesel	1			X		X
02/05/10		Fort Worth, TX	ER	Transport	Diesel	2		X	X		X
02/05/10		Douglasville, TX	ER	Transport	Diesel	5		X	X		X
02/14/10		Gurdon, AR	ER	Transport	Diesel	1.5		X			X
02/15/10		Fort Worth, TX	ER	Transport	Crude oil	4		X	X		X
02/18/10		Schertz, TX	ER	Transport	Diesel	2		X			X
02/22/10		Mansfield, LA	ER	Transpor	Anti-Freeze	4.5		X	X		X
02/26/10		Denton, TX	ER	Transport	Diesel	3		X			X
02/28/10		Fort Worth, TX	ER	Transport	Diesel	2		X			X
03/01/10		Event, TX	ER	Transport	Diesel	2.5			X		X
03/09/10		Keene, TX	ER	Transport	Hydraulic Oil	7		X			X
03/10/10		Corpus Christi, TX	ER	Transport	Diesel	2			X		X
03/14/10		Mena, AR	ER	Transport	Diesel	1.5					X
03/15/10		Bossier City, LA	ER	Transpor	Diesel	1.5		X			X
03/16/10		Little Rock, AR	ER	Facility	Liquid Resin	2					X
03/17/10		Shreveport, LA	DRILL	Facility	Diesel	DRILL	X	X	X	X	X
03/20/10		Fort Worth, TX	ER	Transport	Diesel	1					X
03/22/10		Corpus Christi, TX	ER	Transport	Motor oil	6		X	X		X
03/22/10		San Antonio, TX	ER	Transport	Diesel	2			X		X
03/31/10		Denton, TX	ER	Transport	Diesel	3			X		
04/04/10		Carmel, LA	ER	Transpor	Diesel	2			X		X
04/16/10		Lewisville, AR	ER	Transport	Diesel	7.5		X	X		X
04/16/10		San Antonio, TX	ER	Transport	Mixed Solvents	1					X
04/16/10		Laredo, TX	ER	Transport	Diesel	1			X		X
04/23/10		Waco, TX	ER	Transport	T mix	28		X	X		X
04/25/10		Del Rio, TX	ER	Transport	Motor Oil & Diesel	50		X	X	X	X

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04/26/10	[redacted]	Shreveport, LA	ER	Facility	Hydrochloric Acid	18		X	X		X
05/03/10		Weatherford, TX	ER	Transport	Diesel	1.5					X
05/04/10		Saint Joe, TX	ER	Transport	Diesel	2		X			X
05/06/10		Grand Isle, LA	ER	Transport	Crude Oil	50	X		X		X
05/07/10		Nash, TX	ER	Transport	Diesel	1		X	X		X
05/10/10		Roanoke, TX	ER	Transport	Diesel/Oil	2					X
05/15/10		Chapel, AR	ER	Transport	Diesel	1					X
05/26/10		Texarkana, TX	ER	Transport	K-Dry Touch Oil	4.5		X	X		X
05/27/10		Graford, TX	ER	Transport	Gasoline	50			X	X	X
05/27/10		Buda, TX	ER	Transport	Diesel	1					X
06/08/10		New Braunfels, TX	ER	Transport	Diesel	1					X
06/09/10		Midlothan, TX	ER	Transport	Diesel	1					X
06/29/10		Douglasville, TX	ER	Transport	Diesel & Gas	3.5		X	X		X
07/02/10		Weatherford, TX	ER	Transport	Diesel	2			X		X
07/05/10		Crystal City, TX	ER	Transport	Crude Oil	145			X		X
07/14/10		Grand Isle, LA	ER	Transport	Crude Oil	50	X		X		X
07/14/10		Carmel, LA	ER	Transpor	Hyraulic/Water	3.5		X			X
07/17/10		Segovia, TX	ER	Transport	Diesel	2					X
07/29/10		San Antonio, TX	ER	Transport	Diesel	2			X		X
08/02/10		Friendship, AR	ER	Transport	Hydraulic Oil	1			X		X
08/03/10		Carrizon Springs, TX	ER	Transport	Diesel	4.5			X		X
08/10/10		Fort Worth, TX	ER	Transport	Hydraulic oil	1		X			X
08/12/10		Shreveport, LA	ER	Transpor	Saltwater/Oil	50			X		X
08/14/10		Del Rio, TX	ER	Transport	Diesel	2					X
08/14/10		Witsett, TX	ER	Transport	Diesel	3					X
08/19/10		Cleburne, TX	ER	Transport	Motor Oil	71		X			X
08/19/10		Hooks, TX	ER	Facility	Diesel	3.5		X			X
08/20/10		Devine, TX	ER	Transport	Diesel	1					X
08/25/10		Sheridan, AR	ER	Transport	Diesel	2			X		X
08/27/10		Hope, AR	ER	Transport	Synthebond	4.5					X
08/29/10		Mt. Pleasant, TX	ER	Transport	Diesel	1		X			X
08/31/10		Twin Groves, AR	ER	Facility	Oil,Antifreeze	2					X
09/01/10		Coushatta, LA	ER	Transpor	Diesel	10		X			X
09/08/10		Burnett, TX	ER	Transport	Unleaded Fuel	7			X		X
09/11/10		Benton, AR	ER	Transport	Diesel	1.5			X		X
09/14/10		Gonzales, TX	ER	Transport	Hyrochloric Acid	250		X			X
09/16/10		Dallas, TX	ER	Transport	Diesel	3		X			X
09/17/10		Cleburne,TX	ER	Transport	Diesel	2			X		X

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10/01/10	[redacted]	New Boston, TX	ER	Transport	Jancryl 1987	1		X			X
10/01/10		Marble Falls, TX	ER	Transport	Liquid Fertlizer	1					X
10/02/10		Lisbon, LA	ER	Transpor	Saltwater/Oil	500		X			X
10/08/10		Temple, TX	ER	Transport	Red Dye Diesel	28.5		X	X		X
10/12/10		Monticello, AR	ER	Transport	Herbicide	2					X
10/13/10		Fort Worth, TX	DRILL			DRILL					
10/14/10		Brister, AR	ER	Transport	Hydrochloric Acid	10					X
10/15/10		Lytle, TX	ER	Transport	Diesel	1			X		X
10/16/10		Fort Worth, TX	Drill		Diesel	unknown		X	X		X
10/24/10		Azle, TX	ER	Transport	Diesel	2			X		X
10/25/10		Mt. Pleasant, TX	DRILL			DRILL					
10/26/10		Wickes, AR	ER	Transport	Diesel	1					X
10/26/10		Three Rivers, TX	ER	Transport	Hyrochloric Acid	16.5					X
11/03/10		Haltom City, TX	ER	Transport	Diesel/Gas	1		X			X
11/09/10		Gerald, TX	ER	Transport	Diesel	1					X
11/10/10		San Antonio, TX	ER	Transport	Soybean Oil	1			X		X
11/13/10		Mt. Pleasant, TX	ER	Transport	Diesel	3.5			X		X
11/14/10		San Antonio, TX	ER	Transport	Hydraulic Oil	1					X
11/24/10		Victoria, TX	ER	Transport	Diesel	2			X		X
11/27/10		Mineral Wells, TX	ER	Transport	Diesel	2			X		X
11/29/10		Texarkana, TX	ER	Transport	Diesel	2		X	X		X
11/30/10		Hooks, TX	ER	Transport	Diesel	2		X	X		X
12/08/10		Kyle, TX	ER	Transport	Mineral Oil	1					X
12/9/10		Madsionville, TX	ER	Transport	Diesel/Oil	4					X
12/09/10		New Boston, TX	ER	Facility	Leacheate	47.5		X			X
12/11/10		Marion, TX	ER	Transport	Diesel	2					X
12/15/10		Shreveport, LA	ER	Transport	Used Motor Oil	2			X		X
12/16/10		Arlington, TX	ER	Transport	Diesel fuel	2			X		X
12/28/10		Red Oak, TX	ER	Transport	Gasoline/Diesel	1			X		X

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Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
01.01.09	[redacted]	Royce City, TX	ER	Transportation	Diesel	4 bbl		X	X		X
01.02.09		Ft. Worth, TX	ER	Facility	Diesel	5 bbl			X		X
01.06.09		Denton, TX	ER	Transportation	Diesel	45 bbl		X	X		X
01.07.09		San Antonio, TX	ER	Transportation	Diesel	1 bbl					X
01.13.09		Fairfield, TX	ER	Transportation	Diesel	3 bbl			X		X
01.20.09		Plano, TX	ER	Transportation	Diesel	4 bbl		X	X		X
01.27.09		Hudson Oaks, TX	ER	Transportation	Diesel	1 bbl					X
02.02.09		Richardson, TX	ER	Facility	Hydraulic Oil	15 bbl		X	X		X
02.12.09		Mansfield, TX	ER	Transportation	Hydraulic Oil	1 bbl					X
02.18.09		Forney, TX	ER	Transportation	Fire Water	2 bbl		X	X		X
02.21.09		Carrollton, TX	ER	Facility	Vegetable Oil	2 bbl		X	X		X
02.23.09		Palmer, TX	ER	Transportation	Diesel	4 bbl			X		X
02.26.09		Garland, TX	ER	Transportation	Diesel	4 bbl		X	X		X
02.26.09		San Antonio, TX	ER	Transportation	Diesel	1.5 bbl					X
02.27.09		Boyd, TX	ER	Transportation	Oil	1 bbl			X		X
03.02.09		McKinney, TX	ER	Transportation	Diesel	2 bbl			X		X
03.02.09		Duncanville, TX	ER	Facility	Concrete Mix	40 bbl		X			X
03.09.09		New Braunfels,TX	ER	Transportation	Diesel/Gasoline	85 bbl		X	X		X
03.09.09		Hope, ARK	ER	Facility	Soy Oil	11 bbl		X	X		X
03.11.09		Colorado City, TX	ER	Transportation	Diesel	5 bbl			X		X
03.12.09		Marshall, TX	ER	Transportation	Diesel	4 bbl		X	X		X
03.13.09		Grand Prairie, TX	ER	Transportation	Dye	8 bbl		X	X		X
03.16.09		Mesquite, TX	ER	Transportation	Diesel	1 bbl			X		X
03.16.09		Lorena, TX	ER	Pipeline	Oil	2000 bbl	X	X	X	X	X
03.20.09		Texarkana, TX	ER	Transportation	Waste	1 bbl		X			X
03.23.09		Kennedale, TX	ER	Facility	Diesel	12 bbl			X		X
03.26.09		George West, TX	ER	Transportation	Diesel	1.5 bbl			X		X
03.29.09		Caddo Parish, LA	ER	Transportation	Diesel	1 bbl			X		X
03.31.09		Ft. Worth, TX	ER	Transportation	K Hydroxide	8 bbl		X			X
04.01.09		Dallas, TX	ER	Transportation	Milk	45 bbl		X	X		X
04.14.09		Kerens, TX	ER	Transportation	Diesel	4 bbl		X	X		X
04.16.09		Omaho, TX	ER	Transportation	Fire Water	62 bbl		X			X
04.21.09		Texarkana, ARK	ER	Facility	Diesel	1 bbl		X	X		X
04.28.09		Waskom, TX	ER	Transportation	Gasoline	204 bbl			X		X
04.28.09		San Antonio, TX	ER	Transportation	Diesel	2.5 bbl			X		X
04.30.09		Greenville, TX	ER	Transportation	Diesel	4 bbl		X	X		X
04.30.09		Sanger, TX	ER	Transportation	Diesel	2 bbl		X	X		X
04.30.09		Austin, TX	ER	Transportation	Diesel	2.5 bbl			X		X
04.30.09		San Antonio, TX	ER	Facility	Diesel	1 bbl			X		X
05.05.09		San Antonio, TX	ER	Transportation	Antifreeze	5 bbl					X
05.11.09		Strong, ARK	ER	Transportation	Diesel	6 bbl			X		X
05.13.09		Foreman, ARK	ER	Transportation	Fire Suppression	50 bbl			X		X
05.16.09		Red Oak, TX	ER	Transportation	Diesel	1 bbl			X		X
05.20.09		Waskom, TX	ER	Transportation	Diesel	1 bbl			X		X
05.26.09		Gilmer, TX	ER	Pipeline	Condensate	168 bbl		X	X	X	X
05.29.09		Willow Park, TX	ER	Transportation	Diesel	2 bbl					X
06.03.09		Cresson, TX	ER	Facility	Condensate	1500 bbl		X	X		X

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Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
06.07.09	[redacted]	Poth, TX	ER	Transportation	Diesel	1bbl					X
06.11.09		Denton, TX	ER	Transportation	Diesel	1bbl					X
06.14.09		Benbrook, TX	Drill	Training	N/A	0 bbl			X	X	X
06.15.09		Schulenburg, TX	ER	Transportation	Diesel	1.5 bbl					X
06.22.09		Benbrook, TX	ER	Transportation	Diesel	2 bbl					X
07.01.09		Beckville,TX	ER	Pipeline	Condensate	600 bbl		X	X	X	X
07.06.09		Denton, TX	ER	Transportation	Diesel	4 bbl		X	X		X
07.14.09		Stringtown, OK	ER	Transportation	Diesel	80 bbl		X	X		X
07.24.09		Texarkana, TX	ER	Transportation	Cooking Oil	1 bbl		X			X
07.27.09		Schertz, TX	ER	Facility	Fiberglass Resin	28.5 bbl					X
07.28.09		San Antonio, TX	ER	Transportation	Diesel	2 bbl					X
08.03.09		Texarkana, TX	ER	Facility	Fire Water	7100 bbl			X		X
08.04.09		New Braunfels, TX	ER	Transportation	Diesel	2.5 bbl					X
08.05.09		San Antonio, TX	ER	Facility	Liquid Plastic	6 bbl					X
08.08.09		Marshall, TX	ER	Transportation	Gluteral Dehyde	6 bbl		X	X		X
08.11.09		Camden, AR	ER	Transportation	Diesel	3 bbl			X		X
08.12.09		Texarkana, AR	ER	Transportation	Oil	1 bbl		X			X
08.18.09		Sanger, TX	ER	Transportation	Diesel	1 bbl					X
08.19.09		Alvord, TX	ER	Transportation	Diesel	176 bbl		X	X		X
08.26.09		Godley, TX	ER	Transportation	Diesel	81 bbl		X	X		X
08.29.09		Port Lavaca, TX	ER	Transportation	Crude Oil	140 bbl		X	X		X
09.12.09		Scottsdale,TX	ER	Transportation	Drilling Mud	1 bbl		X	X		X
09.13.09		Anna, TX	ER	Transportation	Diesel	4 bbl		X	X		X
09.14.09		Carthage, TX	ER	Transportation	Diesel	4 bbl			X		X
09.15.09		Seagoville, TX	ER	Transportation	Diesel	5 bbl			X		X
09.16.09		Bossier City, LA	ER	Transportation	Oil	1 bbl			X		X
09.17.09		Kilgore, TX	ER	Transportation	Diesel	7 bbl		X	X		X
09.18.09		Longview TX	ER	Transportation	Diesel	4 bbl			X		X
09.17.09		Ft. Worth, TX	ER	Facility	Ketone	2 bbl					X
09.20.09		Texarkana, TX	ER	Transportation	Diesel	1 bbl		X	X		X
09.22.09		Grandlane, LA	ER	Transportation	Diesel	1 bbl			X		X
10.08.09		San Antonio, TX	ER	Facility	Process Water	21.5 bbl		X			X
10.12.09		Venus, TX	ER	Transportation	Diesel	3 bbl		X	X	X	X
10.12.09		Longview, TX	ER	Pipeline	Condensate	5 bbl		X	X		X
10.12.09		Marion, TX	ER	Transportation	Diesel	4 bbl					X
10.13.09		Ft. Worth, TX	Deployment Drill	Facility	Ethanol	83 bbl			X		X
10.15.09		Comfort, TX	ER	Transportation	Diesel	1.5 bbl					X
10.21.09		Mt. Vernon, TX	ER	Transportation	Diesel	2 bbl		X	X		X
10.25.09		Red Oak, TX	ER	Transportation	Diesel	1 bbl			X		X
10.28.09		Hutchins, TX	ER	Transportation	Diesel	1 bbl			X		X
11.04.09		McQueeny, TX	ER	Transportation	Diesel	2 bbl					X
11.06.09		Rodwater, TX	ER	Facility	Gasoline	1 bbl			X		X
11.12.09		Ft. Worth, TX	ER	Transportation	Diesel, Oil	15 bbl		X	X		X
11.13.09		Glen Rose, TX	ER	Transportation	Diesel/Salt Water	17 bbl		X	X		X
11.20.09		New Braunfels,TX	ER	Transportation	Diesel	1.5 bbl			X		X
11.22.09		Cibilo, TX	ER	Facility	Gasoline	3.5 bbl		X			X
11.30.09		Mesquite, TX	ER	Transportation	Diesel / Gasoline	120 bbl		X	X		X

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Date	Company	Location	Drill Type	Spill Type	Product	Qty (bbl)	Deployment				
							Skimmer	Vac Truck	Boom	Boats	Labor
12.02.09	[redacted]	Austin, TX	Deployment Drill	Facility	Oil	4 bbl		X	X	X	X
12.08.09		Hutchins, TX	ER	Transportation	Diesel	5 bbl		X	X		X
12.18.09		Dallas, TX	ER	Transportation	Diesel / Gasoline	130 bbl		X	X		X
12.18.09		Natchotoches, LA	ER	Transportation	Diesel	5 bbl			X		X
12.21.09		Minden, LA	ER	Facility	Drilling Mud	130 bbl			X		X
12.22.09		Henderson, TX	ER	Transportation	Friction Reducer	7 bbl		X			X
12.24.09		Corsicana, TX	ER	Transportation	Diesel	3 bbl			X		X