
KOCH
KOCH PIPELINE COMPANY LP
103
Developed by:


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Wood River Zone

Oil Spill Response Plan

Developed by:

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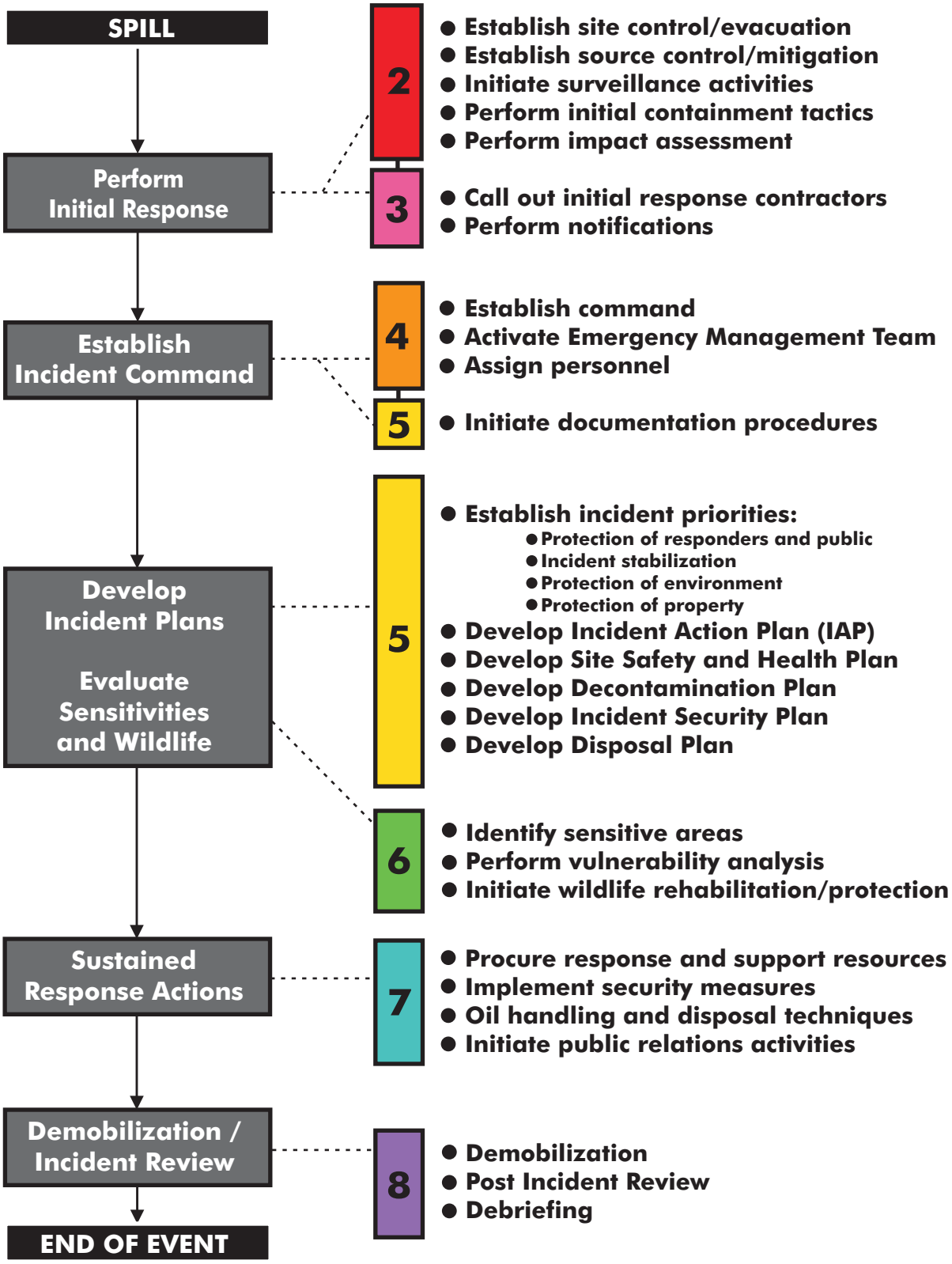
Response Procedures Flow Chart



1. Introduction
2. Initial Response Actions
3. Notifications Phone Numbers
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5. Incident Planning
6. Sensitive Areas Response Tactics
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RECORD OF CHANGES

Changes to this Plan will be documented on this page. Plan review and modifications will be initiated and coordinated by the Business Unit Health, Safety, Security, and Environmental (HSS&E) Department in conjunction with the Area Supervisor/Manager of Operations.

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11/24/2009	Section 3 Figure 3.1-5 and ERAP Figure 3-4	
2/17/2010	Section 3 Figure 3.1-4; added John Whitaker and Dave Brungardt.	

5/3/2010	Section 3 Figure 3.1-4	
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8/18/2010	Section 3 Figure 3.1-4	
8/21/2010	Figure 3.1-6, Section 7 Figure 7.1-1, Appendix B.1.1, ERAP Figure 3-5 and ERAP Figure 4-3	
9/28/2010	Section 3 Figure 3.1-4 Removed Doug Losee	
9/29/2010	Section 1.4 Added the PHMSA approval letter from 2/26/08	
11/11/2010	Appendix F Added the KPL Public Affairs Guide	
11/11/2010	Appendix F Added the 2010 Bay West Drill	
11/23/2010	Section 3 Figure 3.1-7 and ERAP Figure 3-6 Added nearby railroads emergency contact numbers	
11/30/2010	Section 3 Figure 3.1-4 Updated Rick Schlegel's training Status	
12/14/2010	Section 3 Figure 3.1-4	
3/23/2011	Section 3.1	
4/6/2011	Updated response time from 3-11 to 6-16 hours for J. Rudack	
4/6/2011	Figure 14	
5/9/2011	Removed from Wisonsin, Wood River, & MPL	
5/18/2011	Added OSRO documentation for Veolia & Heritage Environmental Services in Minnesota, Wood River and Wisconsin PHMSA plans	
6/28/2011	Section 3 Figure 3.1-4, ERAP Figure 3-3	
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12/14/2011	Section 3 Figure 3.1-7 and ERAP Figure 3-6	
12/29/2011	Section 3 Figure 3.1-4 Added QI: Cody Nelsen, Dave Brungardt and Miley Mundwiler PHMSA Significant Change; removed Scott Neujhar	
1/24/2012	Section 3 Figure 3.1-4	
6/18/2012	Section 3 Figure 3.1-4* Removal of Dave Brungardt as QI from the Woodriver Zone.	
6/27/2012	Section 3 Figure 3.1-4, ERAP Figure 3-3; added Scott Bennett, In training new Pipeline Inspector.	
6/27/2012	Section 3 Figure 3.1-4 * Added Dave Kopke as Qualified Individual for the Wood River Area.	
7/3/2012	Section 3 Figure 3.1-4 * Removed Wade Parrott as a Qualified Individual	
8/17/2012	Section 3 Figure 3.1-4, ERAP Figure 3-3	
11/9/2012	Section 3 Figure 3.1-4; Amended response times for Dave Kopke as QI.	
11/9/2012	Section 3 Figure 3.1-4 ; Added Ken Hillman as QI.	
11/9/2012	Section 3 Figure 3.1-4; Added Steve Molmen as QI.	
11/10/2012	Section 3 Figure 3.1-4; Added Rick Schegel as QI	
11/12/2012	Section 1 Figure 1-4	
11/12/2012	Section 1 Figure 1-4	
11/12/2012	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 86589	
1/22/2013	Section 3 Figure 3.1-4	
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1/24/2013	Section 3.1	
1/28/2013	Section 3 Figure 3.1-4	
1/29/2013	Appendix F	
2/7/2013	Section 3 Figure 3.1-4; Removed Miley Mundwiler as a QI from the Wood River Zone.	
2/7/2013	Section 3 Figure 3.1-4; Ryan Newcomer change of position - in the TRP Database, Maximo Work-order PL288627	
2/7/2013	Section 3 Figure 3.1-4; confirmed Dave Brungardts positon title; plus as a QI for the Woodriver Zone ensured his Home contact information was correct. Work-order PL288627. Information in plans correct, thus no significant changes made.	
2/11/2013	Section 3 Figure 3.1-5 and ERAP Figure 3-5	

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2/15/2013	Section 3 Figure 3.1-5 and ERAP Figure 3-5	
2/22/2013	Completion of the full plan review for the 5-Yr PHMSA Review and Revisions, Work-order PL269694	

SECTION 1 Last revised: February 22, 2013

INTRODUCTION

FIGURE 1-1 - DISTRIBUTION LIST

PLAN HOLDER	ADDRESS	NUMBER OF COPIES		DISTRIBUTION DATE
		PAPER	ELECTRONIC	
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	
KPL Employee (Intranet/ On-line)	KPL's Emergency Response Web Page ,	0	0	

FIGURE 1-2 - WOOD RIVER ZONE INFORMATION SUMMARY

Owner/Operator:	Koch Pipeline Company, L.P. 4111 East 37th Street Wichita, KS 67220
Owner Telephone:	(316) 828-4671
Zone Name:	Wood River Zone
Zone Address:	P.O. Box 64596 St. Paul, MN 55164
Zone Telephone/Fax:	(651) 480-3822 / (651) 480-3827
Zone PHMSA #:	621

FIGURE 1-2 - WOOD RIVER 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**
	Mike Kostelecky NOG - Operations Manager On-scene Incident Commander EOC Liaison (City Representation) Crisis Manager (651) 458-4857 (Office)	P.O. Box 67 Cottage Grove, MN 55016	10404 Glen Eagle Road Woodbury, MN 55129

	(b) (6) (651) 269-6685 *(Mobile) (651) 233-8651(Blackberry) (Pager)		
	David Brungardt Site Assistant Supervisor On-scene Incident Commander KPL EOC Manager / EOC Liaison EOC Liaison (City Representation) (618) 251-5850 (Office) (b) (6) (651) 492-7114 *(Mobile)	480 Robbins Rd Hartford, IL 62048	431 Chadwyck Dr. Glen Carbon, Illinois 62034
	Cody Nelsen Site Asst. Supervisor/Elec. Tech. On-scene Incident Commander Operations Section Chief EOC Liaison (City Representation) (660) 878-6953 (Office) (b) (6) (660) 251-1981 *(Mobile)	25346 E 110th Place Eagleville, MO 64442	18069 West State Hwy F Bethany, Missouri 64424
	Steven Molmen Operations Supervisor On-scene Incident Commander Operations Section Chief Operations: Division / Group Supervisor, Branch Director (651) 458-4856 (Office) (b) (6) (651) 283-4713 *(Mobile)	6483 85th Street South Cottage Grove, MN 55016	1582 Stonegate Road Hastings, MN 55033
	Kenneth Hillman Operations Section Chief On-scene Incident Commander Operations: Division / Group Supervisor, Branch Director Command: On-scene Incident Commander Operations Section Chief, UCS Operations: Division / Group Supervisor, Branch Director (651) 458-4841 (Office) (b) (6) (763) 656-8367 *(Mobile)	6483 85TH ST COTTAGE GROVE,, MN 55016	3745 Nature View Trail Vadnais Heights, MN 55127
	David Kopke Operations Supervisor		

	MPL On-scene Incident Commander, Operations Section Chief, EOC Liaison (City Representation), Crisis Manager (218) 776-3313 (Office) (651) 829-0087 *(Mobile)	6438 85th Street Cottage Grove, Minnesota 55016	5824 Cardinal Ridge Trail Prior Lake, Minnesota 55372
	Richard (Rick) Schlegel SITE ASST SUPR/SR DAMAGE PREV COORD Operations Section Chief On-scene Incident Commander Operations: Division / Group Supervisor, Branch Director (651) 458-4848 (Office) (b) (6) [redacted] (651) 304-7002 *(Mobile)	6483 85th Street Cottage Grove, MN 55016	15946 Xingu Street Forest Lake, MN 55025

FIGURE 1-2 - WOOD RIVER ZONE INFORMATION SUMMARY, CONTINUED

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

SECTION	MILEAGE	DIAMETER	PRODUCTS
Hartford Station Receipt Pipeline			
Capwood Pipeline	2.67	20	Crude
Platt Pipeline	.94	20	Crude
Marathon - Ashland Pipeline	0.5		Crude
Ozark Pipeline to Capwood Pipeline	0.1		Crude
Wood River Pipeline			
Hartford Station, IL to Bethany Station, MO	250	20	Crude
Bethany Station, MO to Mason City Station, IA	194	24	Crude
Mason City, IA to Minnesota State Line	22	18	Crude

FIGURE 1-2 - WOOD RIVER 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:	Worth, Cerro Gordo, Franklin, Hardin, Hamilton, Story, Polk, Warren, Clarke, Decatur (Iowa) Harrison, Mercer, Grundy, Sullivan, Linn, Macon, Randolph, Monroe, Audrain, Montgomery, Lincoln, St. Charles (Missouri) Madison (Illinois)
Alignment Maps (Piping, Plan Profiles):	Maintained at: Koch Discovery Net
Worst Case Discharge (bbls) :	(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:	December 28, 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:	Hartford Terminal	**Address:**	P.O. Box 84 Hartford , IL Pike 62048
Phone:	618-251-5850	**Fax:**	618-251-5887
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA 622		
Distance To Navigable Water:	2 miles to Mississippi River		
Description:			

This site is a pipeline pump station with 4(b) (7)(F) barrel capacity. The materials handled at the terminal are limited to crude oil and a water-based corrosion inhibitor. All products are stored in aboveground storage tanks. Delivery pipelines enter the station from the east. Crude oil is delivered to the terminal by pipeline and is transferred into aboveground storage tanks (AST #40, #41, #42, or #43), prior to being pumped into the main pipeline. Product is pumped through three mainline pumps and is delivered to the Bethany Terminal via a 20-inch pipeline which exits the station to the west. Two belowground sumps are also located within the terminal. The sump pumps are manually engaged to discharge back into the main pipeline system.
Driving Directions:
From Bethany, MO take I35 south to Highway 36E (at Cameron) to Highway 63 south (at Macon) to 170E (at Columbia) to St. Louis. Get on I270 north and take it to IL Highway 3 north. Approximately 0.25 mile turn north (left) on Delmar Avenue. Approximately 1 mile turn east (right) on Robins Road. The terminal is 0.25 miles down the road on the right hand side.

(b) (7)(F)

Hartford Terminal

Hartford Station Evacuation & Fire Equipment Location Map
Hartford Station Drainage Map

FIGURE 1-4 - PIPELINE FACILITIES OVERVIEW, CONTINUED

Facility:	Bethany Station	**Address:**	(b) (7)(F) [redacted]
Phone:	660-878-6953	**Fax:**	660-878-6952
(b) (7)(F) [redacted]			
Agency Assigned Plan Number:	PHMSA 621		
Distance To Navigable Water:	1/4 mile to Zadie Creek		

Description:

This site is a pipeline pump station with (b) (7)(F) [redacted] capacity. The materials handled at the terminal are limited to crude oil and a water-based corrosion inhibitor. All products are stored in above ground storage tanks. Delivery pipelines enter the station from the south. Crude oil is delivered to the terminal by pipeline and is transferred into aboveground storage tanks (AST #30, #31, #32, or #33), prior to being pumped into the main pipeline. Product is pumped through the station?s three mainline pumps and is delivered to the Pine Bend refinery via a 24-inch pipeline which exits the station to the north. One belowground sump is also located within the station. The sump pump is manually engaged to discharge back into the main pipeline system.

Driving Directions:

Follow I-35 north to intersection of Highway 69. Exit 114, turn right (east) follow to first gravel road on right. Follow to terminal.

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

Bethany Station, CONTINUED

Bethany Station Evacuation & Fire Equipment Location Map
Bethany Station Drainage Map

Wood River Zone 1 - 12

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), EPA Region V Area Contingency Plan and the EPA Region Vll Area Contingency Plan.. 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)
- 49 CFR 195.402 (e) Emergencies. This plan is also intend to include emergency procedures to provide safety when an emergency condition occurs in conjunction with the Operations, Maintanance and Emergencies Manual required by 49CFR195.402(a).

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.

David Stecher
VP of Operations

1.4 AGENCY SUBMITTAL / APPROVAL LETTERS

Click here to view PHMSA Minneosta, Wisconsin, and Wood River Zone Approval Letter 2-26-08.PDF

Click here to view 2-22-13 PHMSA Submittal of PHMSA 5-YR Plan Review and Revisions.pdf

SECTION 2 Last revised: February 2006

INITIAL RESPONSE ACTIONS

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	☐

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.	☐

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	☐

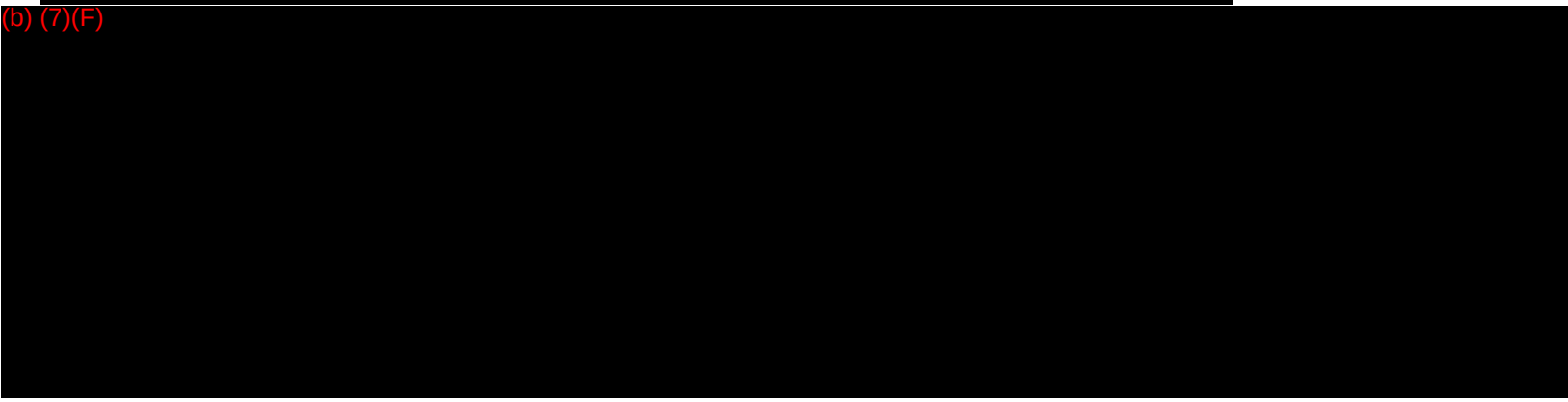
2.8 MEDICAL

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	☐

(b) (7)(F)

(b) (7)(F)



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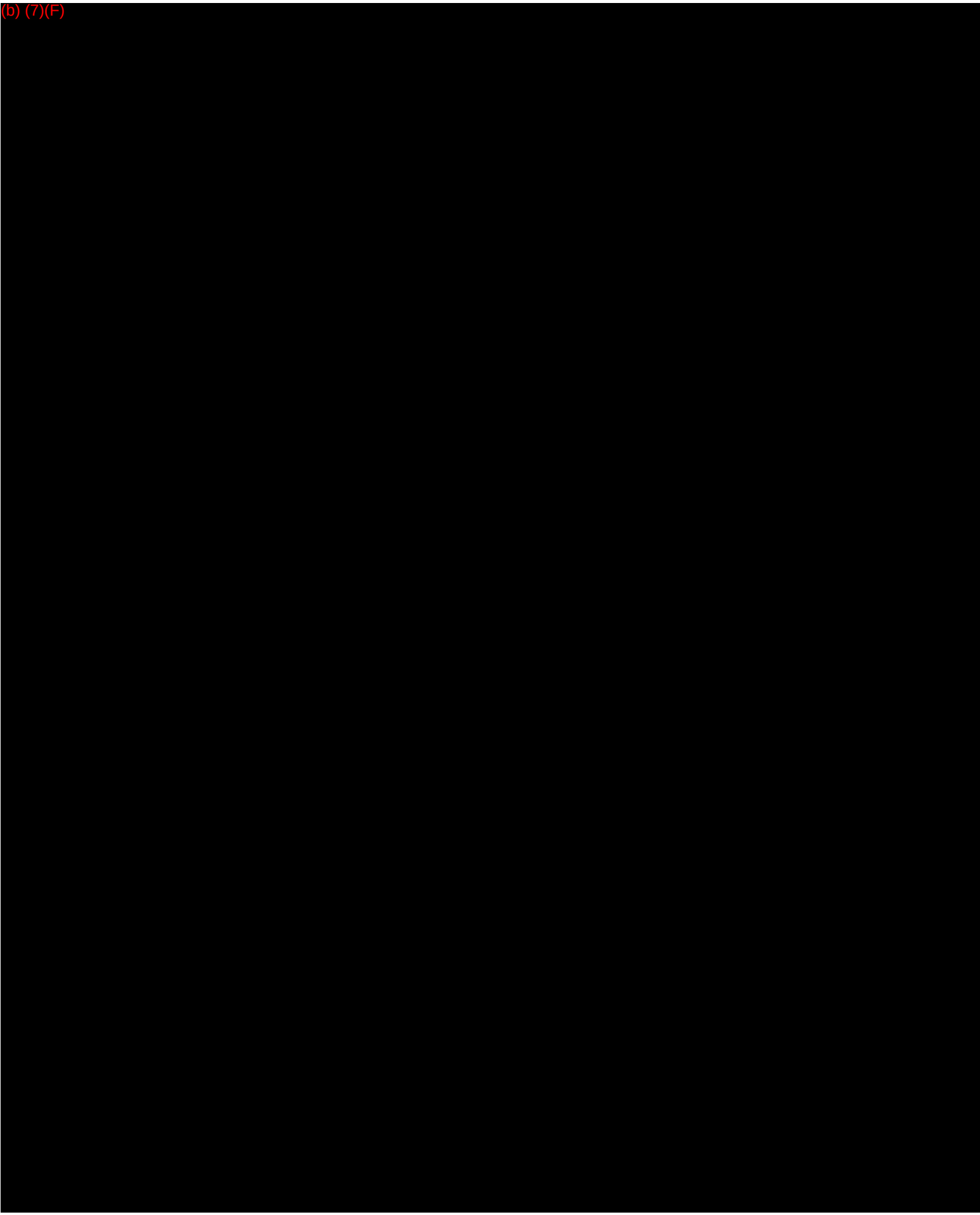


(b) (7)(F)

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: February 15, 2013

NOTIFICATIONS / TELEPHONE NUMBERS

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
- **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)

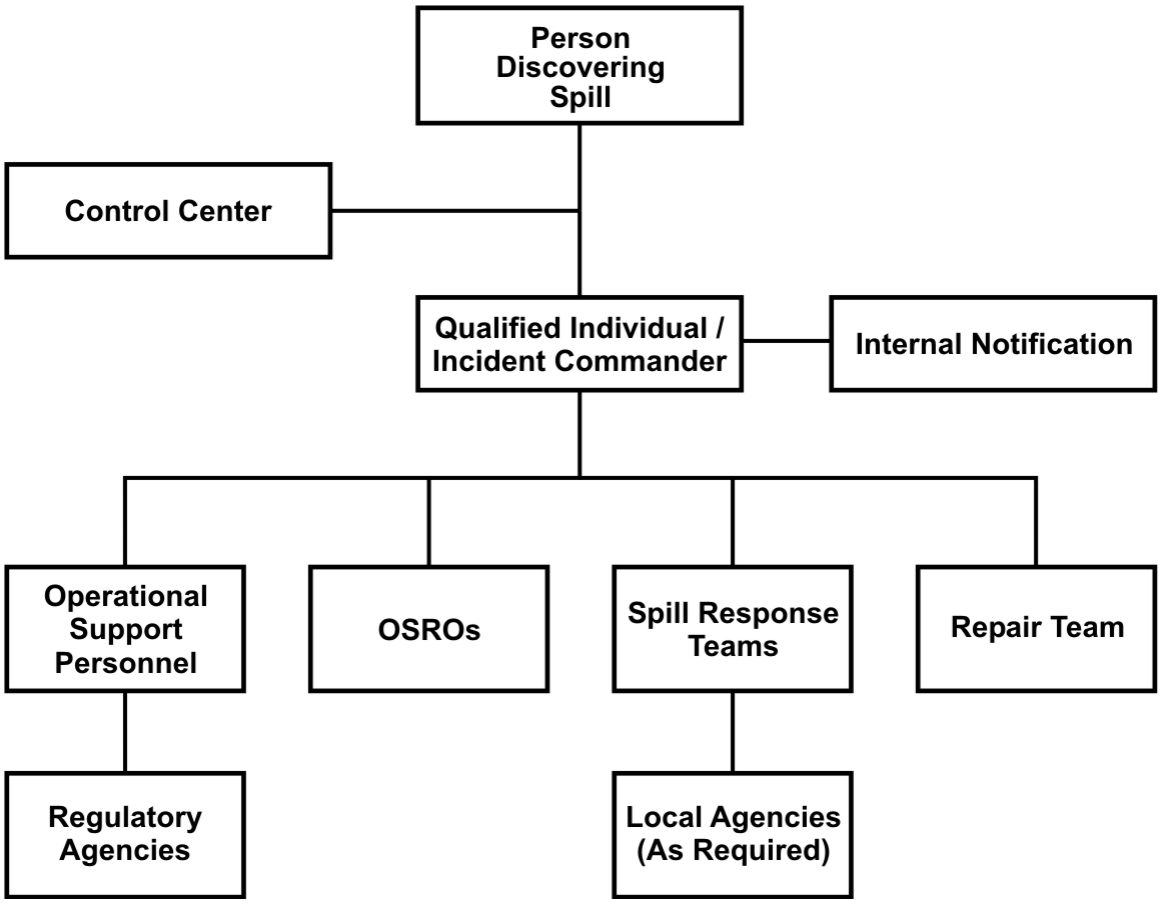
7 - Affected employee (if applicable)

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 (INCLUDING PETROLEUM PRODUCTS) INVOLVED:

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

7. ESTIMATED VOLUME OF OIL (INCLUDING PETROLEUM PRODUCTS) 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**
*KPL Incident Communicator System	1-316-828-5001 (Koch Security will answer) (Office)	N/A	Internal Communication System			
Mike Kostelecky NOG - Operations Manager **Qualified Individual**	(651) 458-4857 (Office) (b) (6) (651) 269-6685 *(Mobile) (651) 233-8651(Blackberry) (Pager)	2.0 - 11.0	On-scene Incident Commander EOC Liaison (City Representation) Crisis Manager	x	x	x
David Brungardt Site Assistant Supervisor **Qualified Individual**	(618) 251-5850 (Office) (b) (6) (651) 492-7114 *(Mobile)	1.0 - 8.0	On-scene Incident Commander KPL EOC Manager / EOC Liaison EOC Liaison (City Representation)	x	x	
Cody Nelsen Site Asst. Supervisor/Elec. Tech. **Qualified Individual**	(660) 878-6953 (Office) (b) (6) (660) 251-1981 *(Mobile)	1.0 - 5.0	On-scene Incident Commander Operations Section Chief EOC Liaison (City Representation)	x	x	
Steven Molmen Operations Supervisor **Qualified Individual**	(651) 458-4856 (Office) (b) (6) (651) 283-4713 *(Mobile)	2.0 - 11.0	On-scene Incident Commander Operations Section Chief Operations: Division / Group Supervisor, Branch Director	x	x	x
Kenneth Hillman Operations Section Chief On-scene Incident Commander Operations: Division / Group Supervisor, Branch Director **Qualified Individual**	(651) 458-4841 (Office) (b) (6) (763) 656-8367 *(Mobile)	2.0 - 11.0	Command: On-scene Incident Commander Operations Section Chief, UCS Operations: Division / Group Supervisor, Branch Director	x	x	x

David Kopke Operations Supervisor MPL **Qualified Individual**	(218) 776-3313 (Office) (651) 829-0087 *(Mobile)	2.0 - 11.0	On-scene Incident Commander, Operations Section Chief, EOC Liaison (City Representation), Crisis Manager	x	x	x
Richard (Rick) Schlegel SITE ASST SUPR/SR DAMAGE PREV COORD **Qualified Individual**	(651) 458-4848 (Office) (b) (6) [redacted] (651) 304-7002 *(Mobile)	2.0 - 11.0	Operations Section Chief On-scene Incident Commander Operations: Division / Group Supervisor, Branch Director	x	x	x
Matthew Curlee Damage Prevention Coordinator	(651) 458-4860 (Office) (651) 829-1303 *(Mobile)	2.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Safety Officer Assistant	x	x	
Premm Badhwa Measurement Technician	(651) 458-4863 (Office) (651) 230-7813 *(Mobile)	3.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Logistics: Security 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.

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
Troy Dicke Pipeline Inspector	(612) 759-3612 (Office) (612) 759-3612 *(Mobile)	2.0 - 11.0	Operations: Task Force Leader, Pipeline Repair First Responder Demobilization Unit Leaders	x	x	
Michael (Mick) Hemenway DOT Compliance Coordinator	(651) 480-3861 (Office) (651) 470-1788 *(Mobile) None (Pager)	2.0 - 11.0	Liaison Officer Planning: Technical Specialist - DOT Compliance EOC Manager	x	x	
Brandon Irving Mechanical Technician	(651) 458-4843 (Office) (651) 373-0718 *(Mobile)	2.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Gerald Kennedy Electrical Technician	(651) 458-4844 (Office) (651) 398-2140 *(Mobile)	2.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Division / Group Supervisor, Branch Director	x	x	
Jeremy Johnson Corrosion Technician	(612) 558-6698 *(Mobile)	2.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Logistics: Security Manager	x	x	
Tim Franklin Pipeline Inspector	(612) 214-3459 *(Mobile)	1.0 - 5.0	Operations: Task Force Leader, Pipeline Repair First Responder Demobilization Unit Leaders	x	x	
Kimberly Woldengen Public Awareness Coordinator	(651) 438-1565 (Office) (612) 670-2588 *(Mobile)	2.0 - 11.0	PIO Assistant: Local Emergency Responders Logistics: Service Branch Technical Specialist: ROW	x	x	

Shawn Waidelich NOG Inspection/Engineering Leader	(651) 438-1558 (Office) (651) 231-0288 *(Mobile)	2.0 - 11.0	Planning Section Chief EOC Manager Crisis Manager	x	x	
Sarah Ryan Records Coordinator	(651) 438-1308 (Office) (651) 895-3172 *(Mobile)	2.0 - 11.0	Planning: Documentation Unit Leader		x	
Jennifer Sweney Damage Prevention Leader	(651) 480-3936 (Office) (651) 769-4824 *(Mobile)	2.0 - 11.0	Logistics: Service Branch Technical Specialist: ROW Liaison Officer	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
Andrew Verga NOG Safety Manager	(651) 438-1325 (Office) (651) 605-1208 *(Mobile)	2.0 - 11.0	Safety Officer	x	x	
Ryan Newcomer EH&S Supervisor	(651) 438-1564 (Office) (651) 829-1643 *(Mobile)	2.0 - 11.0	Planning: Environmental Unit Leader Liaison Officer Operations:	x	x	

			Disposal Group			
Gary R. Johnson Operations Supervisor	(320) 632-5567 (Office) (b) (6) [redacted] (320) 232-3511 *(Mobile) (b) (6) [redacted] (Pager)	2.0 - 11.0	First Responder, On-scene Incident Commander, Operations Section Chief, Branch Director, EOC Liaison (City Representation)	x	x	x
Scott Bennett Pipeline Inspector	651-302-1307 *(Mobile)	3.0 - 11.0	Operations: Task Force Leader, Pipeline Repair First Responder Demobilization Unit Leaders	x	x	
Mike Fowler Line Locator / Mechanical Technician	(618) 251-5850 (Office) (618) 219-0357 *(Mobile)	In Training	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager			
Kyle Mader Project Engineer	(651) 438-1589 (Office) (651) 829-4881 *(Mobile)	2.0 - 11.0	Logistics: Support Branch Logistics: Service Branch Logistics Section Chief			
Anthony (Tony) Ford Pipeline Inspector	(651) 319-3031 *(Mobile)	In Training	Operations: Task Force Leader, Pipeline Repair First Responder Demobilization Unit Leaders			
Jeremy Sayre Damage Prevention Coordinator	(660) 878-6953 (Office) (575) 997-7785 *(Mobile)	1.0 - 5.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Safety Officer Assistant	x	x	
Matthias (Luke) Graff Mechanical Technician	(651) 458-4846 (Office) (651) 302-3032 *(Mobile)	In Training	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Matthew (Matt) Talarico	(651) 458-4876		First Responder Operations: Strike			

MECHANICAL QUALITY CONTROLS TECHNICIAN	(Office) (651) 346-9838 *(Mobile)	In Training	Team / Task Force Leader or Single Resource Boss Operations: Staging Area 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.

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
Joshua Boyd Automation / Electical Technician	(651) 458-4877 (Office) (651) 829-5640 *(Mobile)	In Training	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager			
Kimberly (Kim) Gerold Contractor Selection / Management Capability Leader	(651) 438-1775 (Office) (651) 233-8143 *(Mobile)	2.0 - 11.0	Logistics: Service Branch Planning: Situation Unit Leader Planning: Resource Unit Leader		x	
Amy Fischer Cost Analyst	(651) 438-1559 (Office) (651) 304-7864 *(Mobile)	2.0 - 11.0	Finance / Admin Section Chief Logistics: Section Chief Planning: Resource Unit Leader	x	x	

Michael Carter Damage Prevention Coordination	(651) 458-4842 (Office) (612) 214-4168 *(Mobile)	2.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Brandon Lisle Corrosion Technician	(660) 373-1819 *(Mobile)	1.0 - 5.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area Manager	x	x	
Jeff Lorentz Pipeline Inspector	(612) 202-2966 *(Mobile)	2.0 - 11.0	Operations: Task Force Leader, Pipeline Repair First Responder Demobilization Unit Leaders	x	x	
Julie Maher Site Supervisor / ROW Agent	(651) 438-1563 (Office) (612) 269-7819 *(Mobile)	2.0 - 11.0	Planning: Technical Specialist - ROW Unit Leader	x	x	
Dustin Olson Pipeline Inspector	(612) 437-2284 *(Mobile)	2.0 - 11.0	Operations: Task Force Leader, Pipeline Repair First Responder Demobilization Unit Leaders	x	x	
Shelly Marshall Integrity Specialist	(651) 438-1277 (Office) (651) 270-8412 *(Mobile)	2.0 - 11.0	Planning: Situation Unit Leader Planning: Resource Unit Leader Planning: Documentation Unit Leader	x	x	
Samuel Richert Damage Prevention Coordinator	(651) 342-3162 *(Mobile)	2.0 - 11.0	First Responder Operations: Strike Team / Task Force Leader or Single Resource Boss Operations: Staging Area 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.

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
Eben Spencer Inspection Supervisor / Project Engineer	(651) 437-0590 (Office) (612) 719-2316 *(Mobile)	2.0 - 11.0	Planning Section Chief Logistics Section Chief Operation: Repair Group Supervisor	x	x	
Thomas Tangeman Project Engineer	(651) 438-7246 (Office) (651) 829-4803 *(Mobile)	2.0 - 11.0	Logistics Section Chief Logistics: Support Branch Logistics: Service Branch	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		
Federal Agencies		
EPA, Region VII - 24 Hour Number 901 North 5th Street Kansas City, KS 66101	(913) 281-0991 (913) 551-7151	
OSHA Region VII- Regional Office Two Pershing Square 2300 Main Street- Suite 1010 Kansas City, Missouri 64108	(816) 283-8745	
OSHA Regional Number for Region V 230 South Dearborn Street- Room 3244 Chicago, Illinois 60604	(312) 353-2220 1-800-321-6742 After Hours Number	
Pipeline and Hazardous Materials Safety Adminstration (Office of Pipeline Safety) 901 Locust Street, Suite 462 Kansas City, MO 64106	(816) 329-3800	
U.S. Environmental Protection Agency (USEPA) Emergency Response Branch (24 Hour Number) 77 West Jackson Boulevard Chicago, IL 60604	(312) 353-2318 (312) 353-9176	
United State Coast Guard - Upper Mississippi Sector (Environmental Protection)(St. Louis) 1222 Spruce Street Suite 7.103 St. Louis . MO 63101	(314) 269-2332 (314) 269-2408 (fax)	
State Agencies - Illinois		
Illinios Emergency Management Agency 2200 South Dirksen Parkway Springfield, IL 62703	(217) 782-7860 *	
Illinois Commerce Department 527 East Capital Springfield, IL 62701	(217) 782-5050	
Illinois State Patrol 3780 East Lake Shore Drive Springfield, IL 62712	(217) 786-7107 (217) 786-6677	

County Agencies - Illinois		
Madison County		
Fosterburg Fire Protection District 4604 Seminary Road Alton, IL	(618) 466-8492	
Hartford Fire Department Attn: Duane Owens, Chief 507 North Delmar Hartford, IL 62048	(618) 254-4393 (618) 254-0012 (Dave Owens)	
Madison Co. Emergency Manager 157 North Main Street Suite 33 Edwardsville, IL 62025	(618) 692-0537	
Madison Co. Sheriff Department 405 Randall Street Edwardsville, IL 62025	(618) 692-4433 (618) 692-4434	

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 - Illinois		
Madison County		
Madison County LEPC Mr. Larry Ringering 157 North Main Street, Suite 33 Edwardsville, IL 62025	(618) 692-0537	
State Agencies - Iowa		
DNR Emergency Response & Homeland Security Unit 502 East 9th Street Des Moines, IA 50319-0034	(515) 281- 8694	
Iowa Fire Marshal?s Office 215 East 7th Street Des Moines, IA 50319	(515) 725-6145 (515) 725-6196 (DPS)	
Iowa OSHA 1000 East Grand Des Moines, IA 50319	(515) 242-5870 (515) 281-7995 (fax)	
Iowa State Patrol 215 East 7th Street Des Moines, IA 50319	(515) 725-6182	
County Agencies - Iowa		

Cerro Gordo County		
Cerro Gordo Co. Emergency Manager Steve O'Neil, Coordinator 78 South Georgia Avenue Mason City, IA 50401	(641) 421-3665 (641) 421-3662 (fax)	
Cerro Gordo Co. Sheriff Department 17262 Lark Avenue Mason City, IA 50401	(641) 421-3000 (641) 421-3001	
Cerro Gordo LEPC Andrew Buffington P.O. Box 70 Garner, IA 50438	(641) 923-2702	
Clear Lake Fire Department (police) 511 1st Avenue North Clear Lake, IA 50428	(641) 357-2613 (641) 357-7172 (fax) 911	
Mason City Fire Department 350 5th Street SW Mason City, IA 50401	(641) 421-3640 (641) 421-2710 (fax) 911	
Thorton Fire Department (dispatch) 17262 Lark Avenue Mason City, IA 50401	(641) 421-3000	
Clarke County		
Clark County Emergency & LEPC 710 West 13th Street Vancouver, WA 98660	(360) 737-1911 (360) 694-1654 (fax)	
Clarke Co. Emergency Management Agency Allan Mathias, Coordinator 100 South Main Osceola, IA 50213	(641) 342-6654 (641) 342-1545 (fax)	
Clarke Co. Sheriff Department 220 Townline Road P.O. Box 537 Osceola, IA 50213	(641) 342-2914 911	

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 - Iowa		
Clarke County		
Osceola Fire Department 220 Town Line Road Osceola, IA 50213	(641) 342-2914 (Dispatch)	
Decatur County		
Davis City, Garden Grove, Grand River, Lamoni, Leon, Van Wert and Weldon Fire Department & Police 207 North Main Leon, IA 50144	(641) 446-4111	
Decatur Co. Emergency Management Agnecy Richard Erke, Coodinatoar 20401 NW LIttle River Lake Road Leon, IA 50144	(641) 446-7307 (641) 446-4045 (fax)	
Decatur Co. Sheriff Department 207 North Main Leon, IA 50144	(641) 446-4111	
Decatur County LEPC Rich Erke 20401 NW Little River Lake Road Leon, IA 50144	(641) 446-7307	
Franklin County		
Franklin Co. Emergency Management Agency Steve O'Neil, Coordinator 78 South Georgia Avenue Mason City, IA 50401	(641) 421-3665 (641) 421-3662 (fax)	
Franklin Co. Sheriff Department 12 1st Avenue NorthWest Hampton, IA 50441	(641) 456-2731	
Franklin County LEPC Andrew Buffington P.O. Box 70 Garner, IA 50438	(641) 923-2702	
Latimer Sheriff & Fire Department 17 2nd Street NW Hampton, IA 50441	(641) 456-2731	
Hamilton County		
Hamilton Co. Emergency Management Agency Phil Queen, Coordinator 2300 Superior Street Webster City, IA 50595	(515) 832-9518 (515) 832-9525 (fax)	
Hamilton Co. Sheriff Department 2300 Superior Street Suite 8	(515) 832-9500	

Webster City, IA 50595		
Hamilton County LEPC Peg Stickrod P.o. Box 1736 Fort Dodge, IA 50501	(515) 955-6748	
Webster City Fire Department 919 Superior Street Webster City, IA	(515) 832-9131 (515) 832-9133 (fax) 911	
Hardin County		
Ellsworth Fire Department 1551 Dewitt Street Ellsworth, IA 50075	(515) 836-4751 (City Hall) (515) 836-4753 911	

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 - Iowa		
Hardin County		
Hardin Co. Emergency Management Agency Roxane Warnell, Coordinator 1201 14th Avenue PO Box 171 Eldora, Iowa 50627	(641) 939-8132 (641) 939-8137 (fax)	
Hardin Co. Sheriff Deparment 1116 14th Avenue Eldora, IA 50627	(641) 939-8190	
Hardin County LEPC Doug Riggs P.O. Box 171 Eldora, IA 50627	(641) 939-8132	
Iowa Falls Fire Department 321 Stevens Street Iowa Falls, IA 50126	(641) 648-6464 (641) 648-6465 (641) 648-6466 (641) 648-6467	
Polk County		
Ankeny Fire Department	(515) 965-6469	

120 NW Ash Drive Ankeny, IA 50023	911	
Clive Fire Department 8505 Harbach Blvd. Clive, IA 50325	(515) 223-1595 (515) 223-6457 (fax) 911	
Grimes Fire and Rescue 200 S. James Street Grimes, IA 50111	(515) 986-4444 (515) 986-9406 (fax) 911	
Polk Co. Emergency Management Agency A.J. Mumm, Coordinator 1907 Carpenter Avenue Des Moines, IA 50314	(515) 286-2107 (515) 286- 5256 (fax)	
Polk Co. Sheriff Department 2309 Buclid Avenue Des Moines, IA 50310	(515) 286-3800 (515) 286-3333	
Polk County LEPC A.J. Mumm 111 Court Avenue Des Moines, IA 50309	(515) 286-2107	
Urbandale Fire Department 3927 121st Street Urbandale, IA 50323	(515) 278-3970 (515) 278-3972 (fax) 911	
West Des Moines Fire Department 3421 Ashworth Road West Des Moines, IA	(515) 222-3420 (515) 222-3379 (fax) 911	
Story County		
Ames Fire Department 1300 Burnett Avenue Ames, IA 50010	(515) 239-5108 (515) 232-9930 (fax)	
Cambridge Fire Department & Sheriff 1315 South B Avenue Nevada, IA 50201	(515) 382-6566 (515) 597-2002	

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 - Iowa		

Story County		
Story Co. Emergency Management & LEPC Keith Morgan, Coordinator 900 6th Street Nevada, IA 50201	(515) 382-7315 (515) 382-7328 (fax)	
Story Co. Sheriff Department 1315 South Bee Avenue Nevada, IA 50201	(515) 382-6566	
Warren County		
Indianola & New Virginia Fire Department Po Box 337 115 North Howard Indianola, IA 50125	(515) 961-1122 (Sherriff) (515) 961-9405	
Indianola Fire Department 110 N. First Street Indianola, IA 50125	(515) 961-9405 (515)961-9402 (fax) 911	
Warren Co. Emergency Management Agency Mahala Cox, Coordinator 111 N. Buxton Street, Room 129 Indianola, IA 50125	(515) 961-1105 (515) 961-1136 (fax)	
Warren Co. Sheriff Department 115 North Howard Street Indianola, IA 50215	(515) 961-1122	
Warren County LEPC Mahala Cox P.O. Box 337 Indianola, IA 50125	(515) 961-1065	
Worth County		
Grafton Fire Department (Volunteer) 107 Third Avenue Grafton, IA 50440	(641) 748-2190	
Grafton Fire Department (Volunteer) 107 Third Avenue Grafton, IA 50440	(641) 748-2190	
Hanlontown Fire Department (Volunteer) 214 Main Street Hanlontown, IA	(641) 896-2001 (641) 896-2002 (fax) 911	
Worth Co. Emergency Management Ray Huftalin, Coordinator 211 S. 6ths Street Osage, IA 50461	(641) 732-5872	
Worth Co. Sheriff Department	(641) 324-2481	

1000 Central Avenue Northwood, IA 50459		
Worth County LEPC Andrew Buffington P.O. Box 70 Garner, IA 50438	(641) 923-2702	
State Agencies - Missouri		
Missouri Division of Fire Safety PO BOX 844 Jefferson City, MO 65102 2401 East McCarty Street Jefferson City, MO 65101	(573) 751-2930 (800) 392-7766 (hotline)	

Wood River Zone 3 - 17

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		
State Agencies - Missouri		
Missouri State Patrol 1510 East Elm Street Jefferson City, MO 65101	(573) 751-3313	
Missouri, DNR Emergency PO Box 176 Jefferson City, MO 65102	(573) 634-2436	
County Agencies - Missouri		
Audrain County		
Audrain Co. Sheriff Department 1100 Little Bee Road Mexico, MO 65225	(573) 473-5800	
Audrain County Emergency Management Agency Steven Shaw, Director 101 N. Jefferson Street, Room B10 Mexico, MO 65265	(573) 473-5892 (573) 473-7867 (cell) (573) 582-7401 (fax)	
Audrain County LEPC Steven B. Shaw, Coordinator 101 N. Jefferson Street, Suite B-10 Mexico, MO 65265	(573) 473-5892 (573) 473-7867 (cell) (573) 473-5800 (spill) (573) 582-7401 (fax)	
Laddonia Fire Department 209 West 3rd Street Laddonia, MO 63352	(573) 473-5800 * (573) 373-5616	
Mexico Fire Department	(573) 473-5800 *	

300 North Coal Street Mexico, MO 65265	(573) 581-2100 911	
Grundy County		
Emergency Management Agency Jim Lutz. Director 1320 Union Street Morris, IL 60450	(815) 941-3212 (815) 941-3456 9fax)	
Grundy Co. Sheriff Department 610 Main Trenton, MO 64683	(660) 359-2828	
Grundy County LEPC Marisa Hutson, Coordinator 1100 Main Street P.O. Box 108 Trenton, MO 64683	(660) 734-8445 (cell) (660) 358-5363 (spill) (660) 359-2254 (fax)	
Spickard Fire Department 210 North 2nd Street Spickard, MO 64679	(660) 485-6133	
Spickard Fire Protection District (Volunteer) 203 S. 2nd Street Spickard, MO	(660) 485-6137 (660) 485-6137 (fax)	
Harrison County		
Bethany Fire Department PO Box 344 Bethany, MO 64424	911 (660) 425-7912 (660) 425-3199	
Harrison Co. Emergency Manager PO Box 93 Bethany, MO 64424	(660) 425-5310 (660) 425-3199	

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 - Missouri		
Harrison County		
Harrison Co. Sheriff Department 1501 Central P. O. Box 159	(660) 425-3199	

Bethany, MO 64424		
Harrison County Emergency Management Larry Oliver, Director 111 S. 1st Avenue Logan, IA 51546	(712) 644-2353 (712) 644-2274 (fax)	
Harrison County LEPC Phil Martz, Coordinator 3209 Miller Street P.O. Box 93 Bethany, MO 64424	(660) 425-6790 (660) 425-5310 (cell) (660) 425-6806 (fax)	
Lincoln County		
Lincoln Co. Sheriff Department 65 Business Park Drive Troy, MO 63379	(636) 528-6100	
Lincoln County Emergency Management Brian Sladek, Director 1104 E. First Street Merrill, WI 54452	(715) 536-6228 (715) 539-2719 (fax)	
Lincoln County Fire Prtection District 244 Firehouse Lane Troy, MO	(636) 528-8567 (636) 462-2995 (fax) 911	
Lincoln County LEPC Kelly Hardcastle, Coordinator 250 West College Troy, MO 63379	(636) 528-6182 (636) 359-7698 (cell) (636) 528-6100 (spill) (636) 528-2645 (fax)	
Troy Fire Department 244 Firehouse Lane Troy, MO 63379	(636) 528-6100 * (636) 528-8568	
Truxton Fire Department 343 West Lincoln Street Hawk Point, MO 63349	(636) 338-4336 * (636) 338-4700 911	
Linn County		
City of Brookfield Fire Department 116 W. Brooks Street Brookfield, MO 64628	(660) 258-3332 (660) 258-3385 911	
Linn Co. Sheriff Department 115 West Jackson Linneus, MO 64653	(660) 895-5312	
Linn County Emergency Management Agency Gary Redmon, Coordinator 30377 Jucco Drive Brookfield, MO 64628	(660) 258-7247	
Linn County LEPC Gary Redmon, Coordinator	(660) 998-0720 (660) 591-2376 (cell)	

108 N. High Street P.O. Box 92 Linneus, MO 64653	(660) 895-5312 (spill) (660) 658-7279 (fax)	
Macon County		
Emergency Management Agency Jim Root, Coordinator 282 East Macon Street Decatur, IL 62523	(217) 424-1327 (217) 424-1329 (fax)	

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 - Missouri		
Macon County		
Excello Fire Department 39020 State Highway Center Excello, MO 65247	(660) 385-7239 (660) 385-1911 911	
Macon Co. Sheriff Department 101 West Sheridan Macon, MO 63552	(660) 385-2062	
Macon County LEPC Alan Wyatt, Alternate Contact 101 E. Washington P.O. Box 14 Macon, MO 63552	(660) 385-2913	
Macon Fire Department 201 Jackson Street Macon, MO 63552	(660) 385-6436	
New Cambria 24ER Fire Department 105 West Jones Avenue New Cambria, MO 63558	(660) 385-1911	
Mercer County		
Mercer County Emergency Management Agency 214 W. Livingston Street Celina, OH 45822	(419) 586-6468 (419) 586-9835 (fax)	
Mercer County LEPC Tony Johnson, Corrdinator	(660) 748-3606 (660) 748-5927 (cell)	

222 S. College Avenue Princeton, MO 64673	(660) 748-3165 (spill) (660) 748-3634 (fax)	
Mercer County Sheriff Stephen E. Stockman 802 E. Main Street Princeton, MO 64673	(660) 748-3165 (660) 748-3180 (fax)	
Princeton Fire Department 500 South Coleman Street Princeton, MO 64673	911 (660) 748-4828	
Monroe County		
Monroe Co. Sheriff Department 300 North Main Street Paris, MO 65275	(660) 327-5175	
Monroe County Emergency Management 2800 S. Kirby Road Bloomington, IN 47403	(812) 349-2546 (812) 349-2052	
Monroe County LEPC Steve Jones, Coordinator 300 N. Main, Room 203 Paris, MO 65275	(573) 473-8156 (cell) (573) 473-5653 (spill) (660) 327-1019 (fax)	
Paris Fire Department (Volunteer) 124 W. Caldwell Street Paris, MO	(660) 327-4334	
Montgomery County		
Middletown Fire Department (Volunteer) 15 South Cherry Street Middletown, MO 63359	(573) 549-2500 (573) 549-2525	

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 - Missouri		
Montgomery County		
Montgomery Co. Sheriff Department 211 East 3rd Street Montgomery City, MO 63361	(573) 564-3378 (573) 564-3703	
Montgomery County Emergency Management 211 E. 3rd. Street, #103 Mongomery City, MO 63361	(573) 564-2283	
Montgomery County LEPC	(573) 564-2283	

Bob Bishop, Coordinator 211 E. 3rd Street Mongomery City, MO 63361	(573) 544-4108 (cell) (573) 564-3378 (spill) (573) 564-3942 (fax)	
Randolph County		
Moberly Fire Department 310 North Clark Street Moberly, MO 65270	(660) 269-8705 Ext. 2032 * (660) 269-8705 Ext. 2035 911 (660) 263-0596 (fax)	
Randolph Co. Sheriff Department 300 North Clark Street Moberly, MO 65270	(660) 277-5095 911	
Randolph County Emergency Management Agency Jim Wise, Director 30 Randolph Avenue, Suite #1 Elkins, WV 26241	(304) 636-0483 (304) 636-8364 (fax) (304) 636-1945	
Randolph County LEPC Daryl Raasmussen, Coordinator P.O. Box 1005 Moberly, MO 65270	(660) 269-8705 ext. 2035 (b) (6) [redacted] (home) (660) 651-0952 (cell) (660) 269-8705 ext. 2035 (spill)	
St. Charles County		
Flinthill Fire Department 1605 Wentzville Parkway Wentzville, MO 63385	911 (636) 639-8802	
O'Fallon Fire Department 119 East Elm Street O'Fallen, MO 63366	911 (636) 639-8802	
St. Charles County LEPC Rob Wylie, Coordinator 301 N 2nd Street, Room 280 St. Charles, MO 63301	(636) 447-6655 (636) 262-1882 (cell) (636) 949-3023 (spill) (636) 949-3021 (fax)	
St. Charles Emergency Management Agency Dave Todd 301 North 2nd Street, Suite 200 St Charles, MO 63301	(636) 949-3023 (636) 949-3021	
St. Charles Sheriff Department 101 Sheriff Dierker O Fallon, MO 63366	(636) 949-0809	
Sullivan County		
Browning Fire Department	(660) 946-4144	

Humphris Fire Department PO Box 5 Galt, MO 64641	(660) 673-6789 (660) 359-7166	

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 - Missouri		
Sullivan County		
Sullivan Co. Sheriff Department 109 North Main Milan, MO 63556	(660) 265-3313 (660) 265-3222	
Sullivan County Emergency Management Jim Bean 3193 Highway 126, Suite 101 Blountville, TN 37912	(423) 323-6912 (423) 279-2816 (fax)	
Sullivan County LEPC Rick Gardner, Coordinator 109 N. Main Milan, MO 63556	(660) 265-3989 (660) 265-8671 (cell) (660) 341-6892 (spill) (660) 874-5813 (fax)	

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

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
USCG Classified OSRO's		
Bay West5 Empire DriveSt Paul, WI 55103 St. Paul, MN	(800) 279-0456* press 1	
Clean Harbors Cannon Falls, Mn	507-263-0200	
Heritage Environmental Services, LLC1188 Hershal RoadSt. Louis, MO 63137 Bellefontaine , MO	(800) 377-2440*	
Veolia ES Special Services, Inc.785 County Road CB Suite 100Neenah, WI	(800) 688-4005*	

54956 Sheboygan, WI		

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

*24-Hour Number

AFFILIATION	PHONE NUMBER	TIME CONTACTED
Aviation Companies		
Eagle Sky Patrol 12191 Nemo Rd Nemo, SD 57759	(605) 578-1176 (605) 920-1176 (Cell)	
Scott's Helicoper Service 780 South Elmwood Avenue PO Box 92 La Sewer, MN 56058	(507) 665-4064 Business Phone (952) 237-8104 Scott Churchill Cell Phone (952) 492-6166 Scott Churchill Home Phone (507) 665-3680 Office Fax	
Neighboring Facilities		
Amtrak Police	1-800-331-0008	
Burlington Northern Santa Fe (BNSF) Railroad 24/7 Hotline	1-800-832-5452	
Union Pacific Railroad Critical Call Center	1-888-877-7267	
Spill Management Technical Advisors		
Jim Andrew KPL Compliance Director Koch Pipeline Company, L.P.	316-828-5511 (office) 316-250-5226 (cell) 888-732-1764 (pager) 316-828-7887 (fax)	
Joel Davidson Emergency Response Capability Leader 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)	
Katie Stavinoha Director, Public Affairs KCPS, LLC	(281) 363-7260 (office) (713) 459-7340 (cell) (316) 828-6997 (fax)	
PATRICIA A	(316) 828-6373 (work)	

MCCULLOUGH MANAGING DIR-COMPLIANCE, EH&S, INTEGRITY KPL-WICHITA KS 4111 E 37TH ST N WICHITA, KS 67220	(316) 655-6246 (Cell) PAT.MCCULLOUGH@KOCHPIPELINE.COM	
Wildlife Rehabilitation		
Missouri Wildlife Rescue (St. Louis area) 1128 NEW BALLWIN RD BALLWIN, MO 63021-7239	(636) 394-1880	
Tree House Wildlife Center (Brighton, IL) 1825 Fosterburg Road Brighton, IL 62012	(618) 372-8092	
Tri State Bird Rescue (Delaware) 110 Possum Hollow Road Newark, DE 19711	(302) 737-7241	

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
Wood River Zone					
Hartford Terminal	Omega Partners LLC	Joe Evans ? Terminal Operator	Office ? 618-254-0603		Cell ? 618-606-0058 Fax ? 618-254-0604
Hartford Terminal	Omega Partners LLC	Robert ?Mark? Goble ? Terminal Operator	Office ? 618-254-0603		Cell ? 618-920-8789 Fax ? 618-254-0604
Hartford Terminal	Omega Partners LLC	Larry Wright ? Terminal Operations Manager	Cell ? 706-604-7736		If Joe or Mark cannot be reached call Larry

SECTION 4 Last revised:

RESPONSE TEAM ORGANIZATION

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

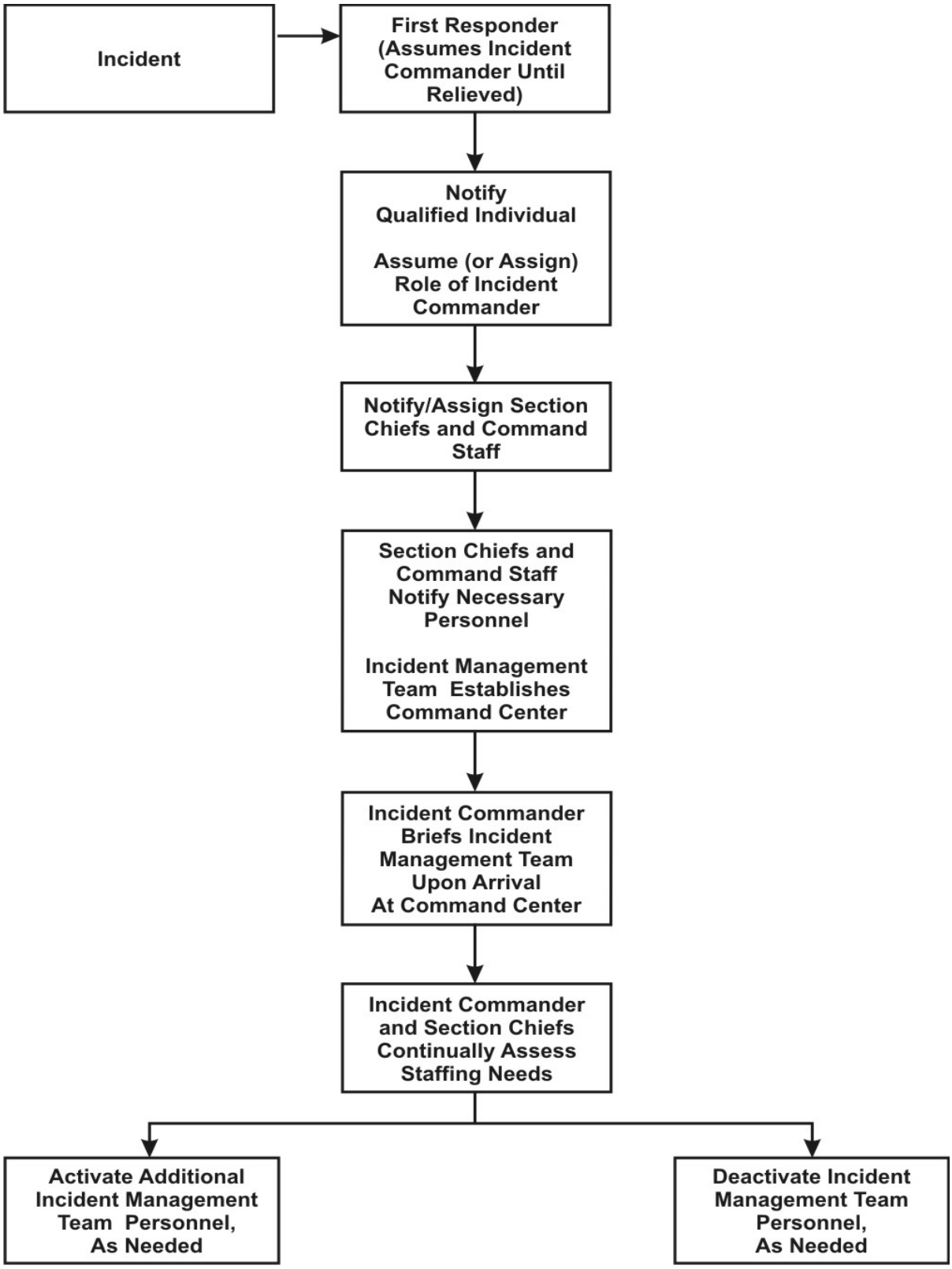
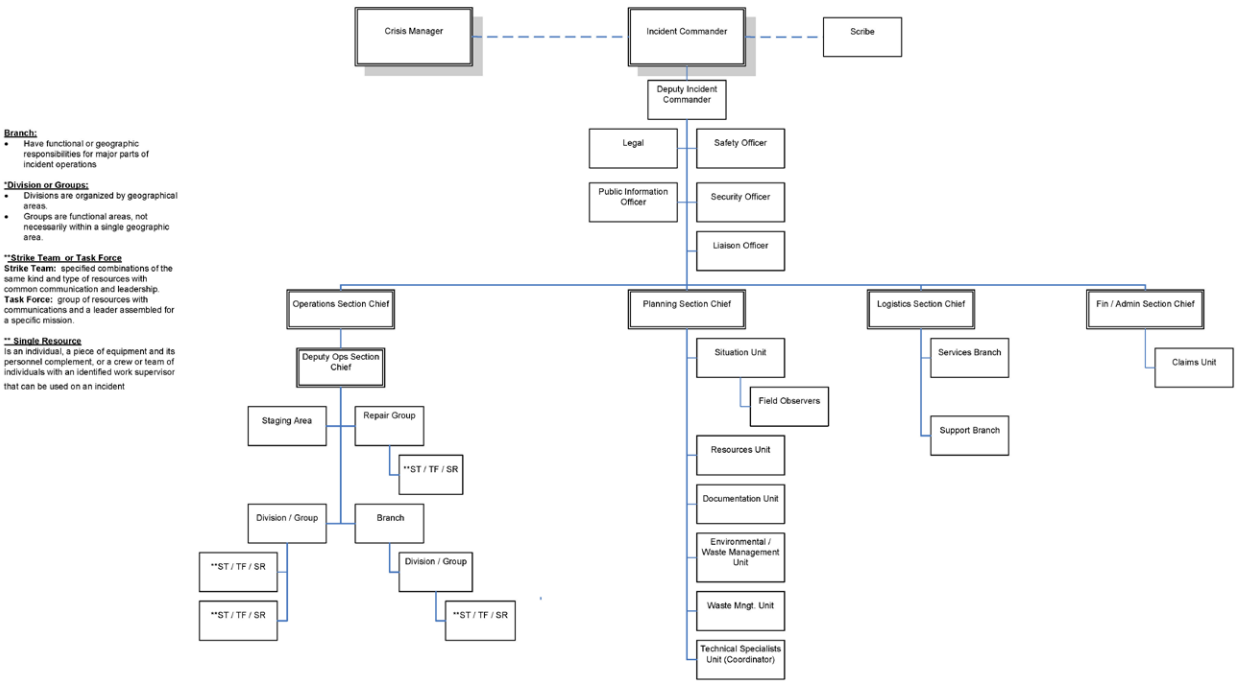


FIGURE 4.5-2 - INCIDENT MANAGEMENT TEAM (IMT) ORGANIZATION CHART

(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).

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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

SECTION 5 Last revised: January 2005

INCIDENT PLANNING, CONTINUED

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

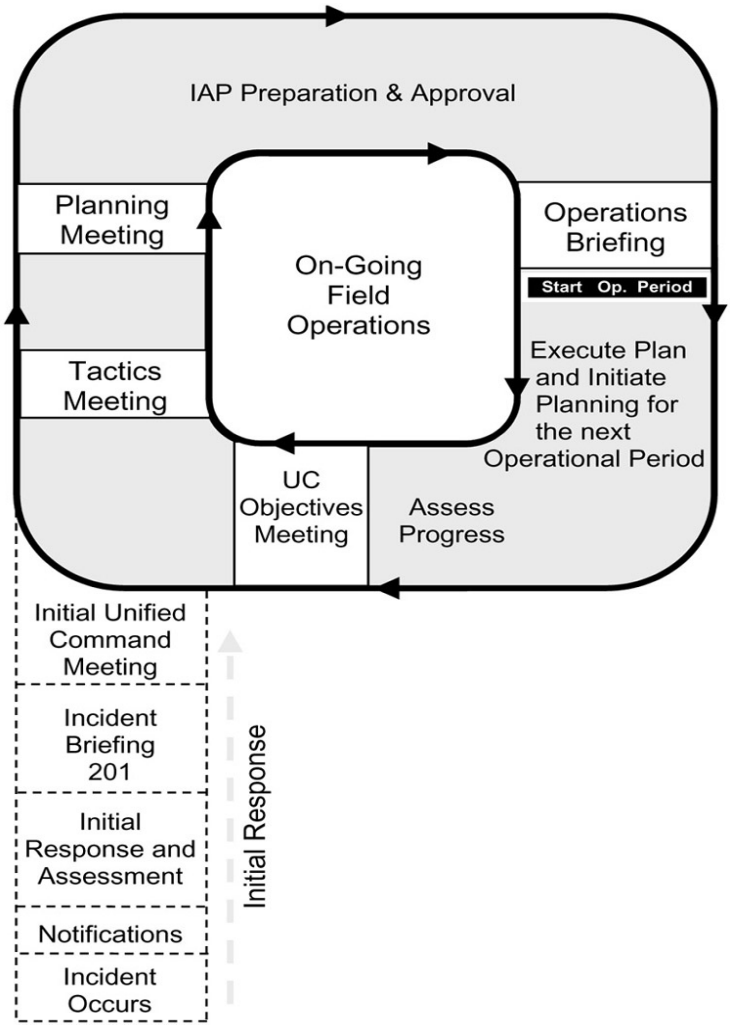
5.2 INCIDENT ACTION PLAN (IAP) PROCESS AND MEETINGS

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)

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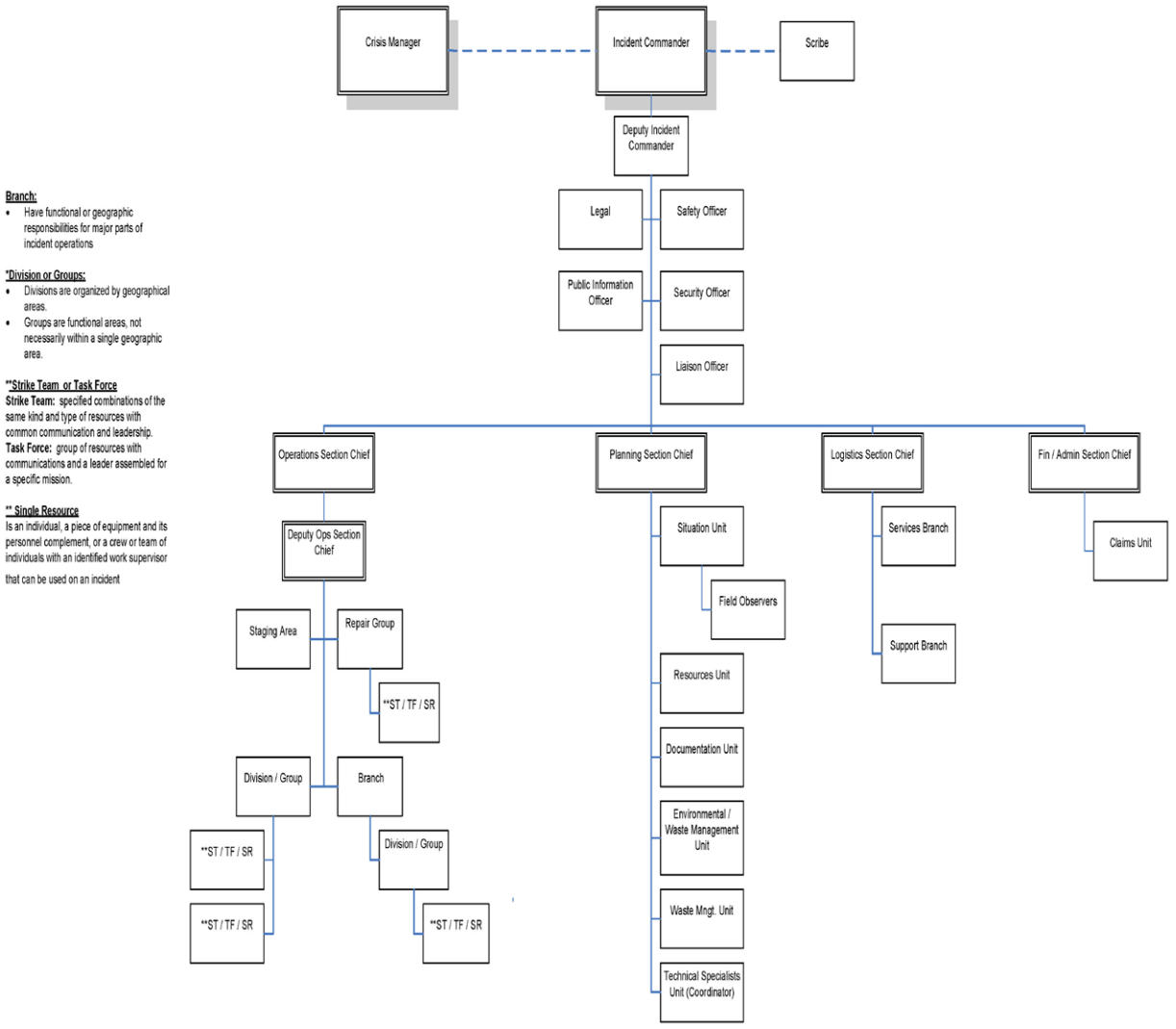
5.3.1 Incident Briefing ICS 201-OS, Continued

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

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

UNIT LOG	June 2000	ICS 214-OS

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

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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.

Wood River 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

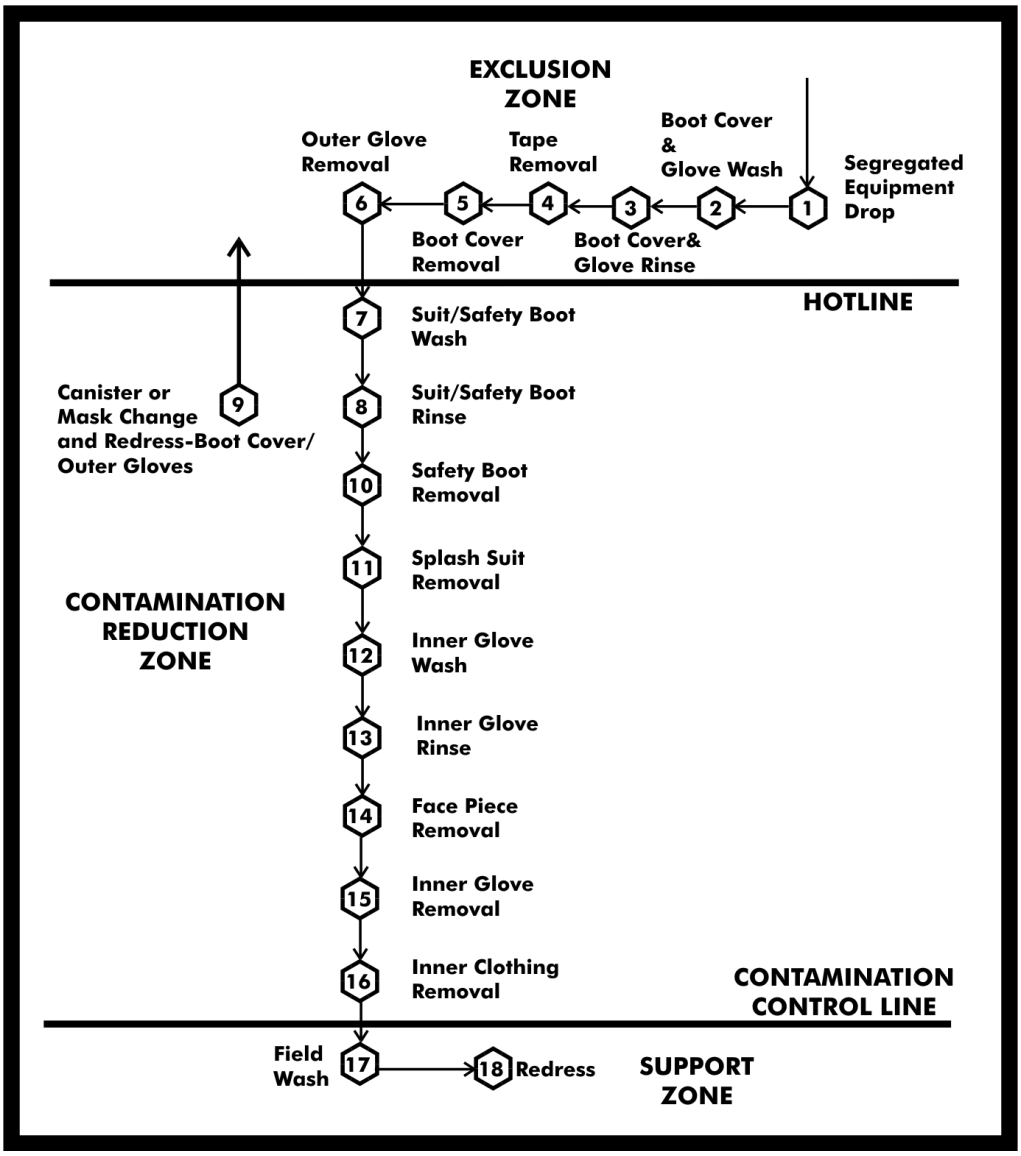
		plastic liner. Avoid touching face with fingers.
STATION 15	Inner glove removal	Remove inner gloves and deposit in lined container.

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



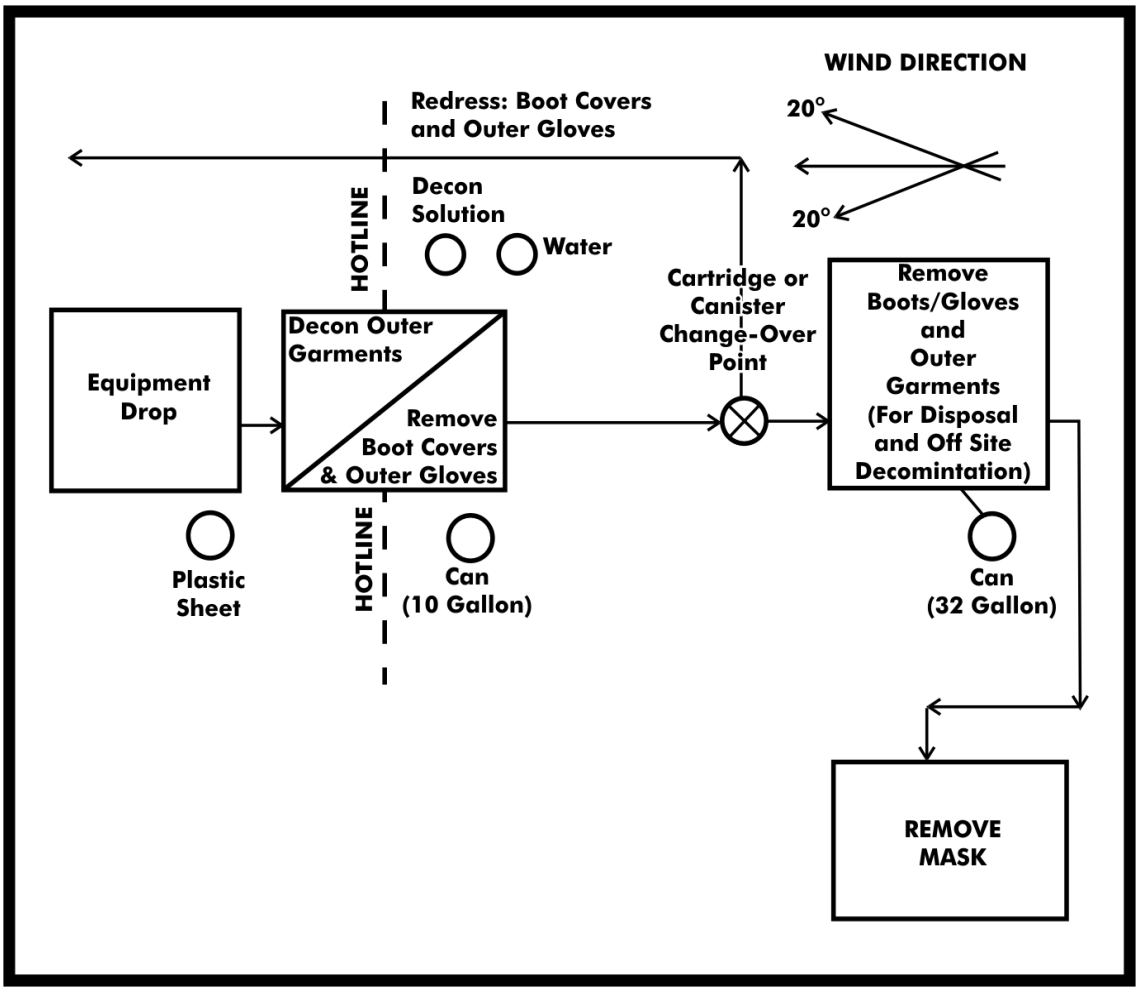
5.5 DECONTAMINATION PLAN, CONTINUED

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: February 2006

SENSITIVE AREAS / RESPONSE TACTICS

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

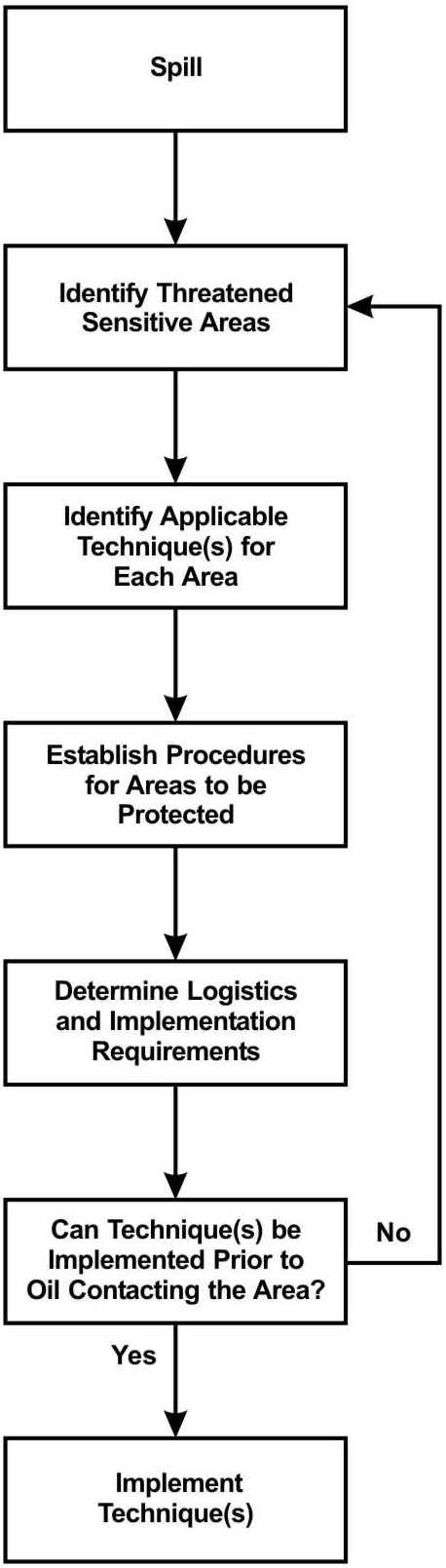


FIGURE 6.3-2 - SUMMARY OF SHORELINE AND TERRESTRIAL CLEANUP TECHNIQUES

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
Aster, Decurrent False	*Boltonia decurrens*	Habitat includes moist, sandy, floodplains and prairie wetlands along the Illinois River. It relies on periodic flooding to scour away other plants that compete for the same habitat.	T	Illinois	Madison County
		Caves, mines			

Bat, Indiana	*Myotis sodalis*	(hibernacula); small stream corridors with well developed riparian woods; upland forests (foraging).	E	Illinois	Madison County
Bittern, Least	*Ixobrychus exilis*	Habitat includes freshwater or brackish marshes with tall emergent vegetation.	T (State)	Illinois	Madison County
Blackbird, Yellow-headed	*Xanthocephalus xanthocephalus*	Habitat includes deep-water marshes, sloughs, forested wetlands, and along lake edge.	E (State)	Illinois	Madison County
Butterfly	*Ellipsaria lineolata*	Riparian habitat required. Habitats include areas of large rivers with swift currents in sand or gravel substrates.	T (State)	Illinois	Madison County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Catchfly	*Silene regia*	Habitats include mesic black soil prairies, openings in upland forests, savannas, scrubby barrens, and open areas along roadsides and railroads.	E (State)	Illinois	Madison County
Darter, Western Sand	*Ammocrypta clarum*	Inhabits medium to large streams where it occurs in sandy areas with moderate current. This species has the habit of burying itself in soft sand with nothing visible but its eyes and mouth.	E (State)	Illinois	Madison County
Ebonyshell	*Fusconaia ebena*	Requires riparian environment. The ebony shell mussel primarily inhabits large rivers in sand or gravel.	T (State)	Illinois	Madison County
		In the Midwest, the major migratory routes include the shorelines of the Great Lakes and major rivers			

Falcon, Peregrine	*Falco peregrinus*	such as the Mississippi. The Peregrine Falcon has never been a common breeder within the state but historical nest sites included rocky ledges, cliffs, bluffs, and tops of large trees. Today, it commonly uses artificial structures within urban areas, such as power plant smoke stacks and skyscraper ledges.	T (State)	Illinois	Madison County
Frog, Illinois Chorus	*Pseudacris illinoensis*	Habitat includes sand and prairies and remnants such as sandy agricultural fields and waste areas. Burrows in sand and emerges after heavy, early spring rains to breed in nearby flooded fields, ditches, and other vernal ponds.	T (State)	Illinois	Madison County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Hearts, Blue	*Buchnera Americana*	Inhabits oak barrens or oak savanna; elsewhere this species inhabits the margins of wet swales, sandy meadows and sand dunes, well-drained open woodlands, prairies, and dry, gravelly hill prairies.	T (State)	Illinois	Madison County
Heron, Little Blue	*Egretta caerulea*	Feed in a variety of freshwater and estuarine covers, such as marshes, swamps, streams, rivers, ponds, impoundments, flooded agriculture fields, estuarine shallows and tidal flats.	E (State)	Illinois	Madison County
		Roosts and nests in			

Kite, Mississippi	*Ictinia mississippiensis*	woodlands, riparian zones, and tree clusters. When hunting, this kite prefers woodland edges, grasslands, savannas, and human-altered areas, like farms and towns.	T (State)	Illinois	Madison County
Massasauga, Eastern	*Sistrurus catenatus catenatus*	Preferred habitat includes wet areas including wet prairies, marshes and low areas along rivers and lakes. In many areas massasaugas also use adjacent uplands during part of the year. They often hibernate in crayfish burrows but they may also be found under logs and tree roots or in small mammal burrows.	NL (Candidate) (Federal) E (State)	Illinois	Madison County
Moorhen, Common	*Gallinula chloropus*	Freshwater or brackish marshes with tall emergent vegetation, ponds, canals, and rice fields.	E (State)	Illinois	Madison County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Night-Heron, Black-crowned	*Nycticorax nycticorax*	Inhabits various wetland habitats, including salt, brackish, and freshwater marshes, swamps, streams, lakes, and agricultural fields.	E (State)	Illinois	Madison County
Night-Heron, Yellow-crowned	*Nyctanassa violacea*	Habitat includes wetlands for foraging and bottomland forest for nesting.	E (State)	Illinois	Madison County
Orchid,		Habitat includes mesic prairie to wetlands such as sedge meadows, marsh			

Eastern Prairie Fringed	*Platanthera leucophaea*	edges, and bogs. Requires full sun for optimum growth and flowering and a grassy habitat with little or no woody encroachment.	T	Illinois	Madison County
Orchid, Western Prairie Fringed	*Platanthera praeclara*	Habitat is almost exclusively in remnant native prairies and sedge meadows. The majority of sites occur in full sunlight on moist, calcareous till or sandy soils.	T	Illinois	Franklin, Hardin, Warren, Clarke, Harrison Counties
Rattlesnake, Timber	*Crotalus horridus*	Inhabits south and west-facing bluff prairies with associated forest.	T (State)	Illinois	Madison County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Sandshell, Black	*Ligumia recta*	Riparian environment required.Habitat includes large rivers but is also found in large lakes and canals. It is generally found on sand and gravel bottoms, but occasionally on mud.	T (State)	Illinois	Madison County
Shiner, Bigeye	*Notropis boops*	Aquatic environment required. Inhabits clear streams with large, permanent pools lined with aquatic vegetation, such as water willow, and bottoms composed mostly of sand, gravel or rock. In Illinois, the bigeye shiner occurs in clear, high-gradient streams.	E (State)	Illinois	Madison County
Snake, Lined	*Tropidoclonion lineatum*	Habitat includes grassland and open woodland habitats, but it has been found in	T (State)	Illinois	Madison County

		urban areas in some part of its range.			
Spectaclecase	*Cumberlandia monodonta*	Riparian environment reqquired. Habitat includes large rivers where they live in areas sheltered from the main force of the current. This species is usually found in clusters in firm mud and in sheltered areas, such as beneath rock slabs, between boulders, and even under tree roots.	Proposed Endangered (Federal) E (State)	Illinois	Madison County
Spiderwort, Prairie	*Tradescantia bracteata*	Habitats include upland sand prairies, hill prairies, barren areas along railroads, and roadside embankments.	T (State)	Illinois	Madison County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Sturgeon, Lake	*Acipenser fulvescens*	Aquatic environment required. The lake sturgeon is a bottom dweller inhabiting the quiet waters of large rivers and lakes. It prefers shallow shoals in lakes and the deepest parts of large rivers.	E (State)	Illinois	Madison County
Sturgeon, Pallid	*Scaphirhynchus albus*	Aquatic environment required. Habitat includes where sandy substrates are plentiful, but also live in waterways that are predominately rocky.	E	Illinois	Madison County
Tern, Least	*Sterna antillarum*	Habitat includes bare alluvial and dredged spoil islands.	E	Illinois	Madison County

Tresses, Spring Ladies'	*Spiranthes vernalis*	Habitat includes riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows along perennial streams.	E (State)	Illinois	Madison County
Aster, Rush	*Aster junciformis*	Inhabits swamps, shores of rivers, ponds, and lakes, and cold bogs.	T (State)	Iowa	Worth, Cerro Gordo Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Baltimore	*Euphydryas phaeton*	Habitats include sphagnum bogs and wet meadows. Caterpillars feed in silk "nests" on turtlehead, false foxglove, plaintain, and ash.	T (State)	Iowa	Cerro Gordo, Worth Counties
Bat, Indiana	*Myotis sodalis*	Caves, mines (hibernacula); small stream corridors with well developed riparian woods; upland forests (foraging).	E	Iowa	Warren, Clarke, Decatur Counties
Beakrush	*Rhynchospora capillacea*	Habitat includes coastal plain marshes, sandy lake edges, dune swales, seepages, sandy marshes, sandy and peaty edges of wetlands, and intermittent wetlands.	T (State)	Iowa	Cerro Gordo County
Bedstraw, Bog	*Galium labradoricum*	Habitats include wet sand prairies, sandy marshes, bogs, and low sandy areas along major rivers.	E (State)	Iowa	Worth, Cerro Gordo Counties
Blue, Silvery	*Glaucopsyche lygdamus*	Habitat includes open woods, coastal dunes, prairies, meadows, road edges, rocky moist	T (State)	Iowa	Worth County

		woods, and brushy fields.			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Buckbean	*Menyanthes trifoliata*	Habitat includes ponds, bogs, wet meadows, seeps, and lake margins. Neutral to acidic water, often growing with Sphagnum moss.	T (State)	Iowa	Hamilton, Cerro Gordo, Worth, Franklin Counties
Clover, Prairie Bush	*Lespedeza leptostachya*	Inhabits native prairie areas and pastures that have retained many of the original prairie species. Prairie bush-clover can reproduce vegetatively, but appears to reproduce primarily by seed.	T	Iowa	Cerro Gordo, Story, Warren, Clarke Counties
Conobea, Cliff	*Leucospora multifida*	Habitats include prairie swales, sand and gravel bars along rivers, muddy borders of ponds, edges of springs in wooded areas, rocky depressions in limestone bluffs, and sandy ditches.	E (State)	Iowa	Polk County
Corydalis, Golden	*Corydalis aurea*	Habitat includes sandy soils overlying coquina limestone deposits, where the soil pH is unusually high for this region, typically between 5.5 and 7.2. Soils supporting the species are very wet to periodically shallowly inundated.	T (State)	Iowa	Warren, Cerro Gordo Counties
Creeper (Mussel)	*Strophitus undulatus*	Riparian environment required. Inhabits small to large rivers. Preferred habitats include low-gradient river reaches with sand and gravel substrates and low to moderate water	T (State)	Iowa	Story, Hamilton, Hardin, Franklin, Cerro Gordo

		velocity.			Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Dace, Pearl	*Margariscus margarita*	Aqatic environment required. Inhabits lakes, cool bog ponds, creeks, and cool springs.	E (State)	Iowa	Worth County
Darter, Orangethroat	*Etheostoma spectabile*	Aquatic environment required. Inhabits relatively slow moving riffles with fine gravel or course sand on the bottom. The distribution of this species has seen very little change over time.	T (State)	Iowa	Story County
Darter, Western Sand	*Ammocrypta clara*	Inhabits medium to large streams where it occurs in sandy areas with moderate current. This species has the habit of burying itself in soft sand with nothing visible but its eyes and mouth.	T (State)	Iowa	Polk County
Ellipse	*Venustaconcha ellipsiformis*	Requires riparian environment. The ellipse occurs in the swift currents of riffles or runs of clear, small to medium sized streams in gravel or sand and gravel substrates.	T (State)	Iowa	Cerro Gordo County
Fern, Marginal Shield	*Dryopteris marginalis*	Habitats include rocky woodlands, rocky wooded slopes, sandstone ravines, and wooded slopes of stabilized sand dunes.	T (State)	Iowa	Hardin County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Fern, Oak	*Gymnocarpium dryopteris*	Habitats include cool, moist woods in rocky, slightly acidic soil.	T (State)	Iowa	Hardin County
Flower, Winged Monkey	*Mimulus alatus*	Habitats include openings in floodplain forests, swamps, seeps, edges of small rivers and drainage canals, poorly drained areas of alluvial meadows, and roadside ditches.	T (State)	Iowa	Decatur County
Flower, Yellow Monkey	*Mimulus glabratus*	Habitats include openings in floodplain forests, swamps, seeps, edges of small rivers and drainage canals, poorly drained areas of alluvial meadows, and roadside ditches.	T (State)	Iowa	Worth, Franklin Counties
Foxglove, Roundstem	*Agalinis gattingeri*	Habitat includes dry open woodlands, prairies, and sandstone outcrops.	T (State)	Iowa	Decatur County
Grass, Arrow	*Triglochin maritimum*	Habitat includes fen mats, open neutral to calcareous conifers swamps	T (State)	Iowa	Story, Cerro Gordo Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Grass, Slender Arrow	*Eriophorum gracile*	Habitat includes muddy to marly fen and bog edges, as well as calcareous sedge meadows.	T (State)	Iowa	Cerro Gordo County
Grass, Slim-leaved Panic	*Dichanthelium linearifolium*	Habitat includes dry woods and sandy open places.	T (State)	Iowa	Warren, Clarke Counties
		Habitat may include open wetlands, wet meadows,			

Harrier, Northern	*Circus cyaneus*	pastures, old fields, freshwater and brackish marshes, grasslands, agricultural fields, shrublands and riparian corridors. Depending on the location, harriers will nest in either dry or wetland sites.	E (State)	Iowa	Warren, Worth, Hardin, Cerro Gordo, Story, Decatur Counties
Hawk, Red-shouldered	*Buteo lineatus*	Habitats include forests with open understory, especially bottomland hardwoods, riparian areas, and flooded swamps.	E (State)	Iowa	Polk County
Heelsplitter, Creek	*Lasmigona compressa*	Riparian environment required. Inhabits creeks, small rivers, and the upstream portions of large rivers. Its preferred substrates are sand, fine gravel, and mud. Most often colonizes areas downstream of riffles in small pools, and described the habitats used as characterized by swift currents and water depths ranging from 0.3-0.9 m (1-3 ft.) deep.	T (State)	Iowa	Cerro Gordo, Story Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Hellebore, False	*Veratrum woodii*	Inhabits wet soils in meadows, sunny streambanks, and open forests.	T (State)	Iowa	Decatur County
Hyssop, Blue Giant	*Agastache foeniculum*	Habitats include deciduous woodlands, woodland borders and openings, thickets, meadows in wooded areas, and powerline clearances in wooded areas.	E (State)	Iowa	Story County

Indigo, Fragrant False	*Amorpha nana*	Habitat includes semi-arid brushlands and thickets in canyons, and on rocky outcrops , on hillsides and walls of canyons. Also found in agricultural areas and riparian woodlands.	T (State)	Iowa	Cerro Gordo, Hardin Counties
Jointweed, Eastern	*Polygonella articulata*	Habitat includes sandy terraces along the major rivers.	E (State)	Iowa	Hardin County
Kingsnake, Speckled	*Lampropeltis getulus*	Inhabits marshes, prairies, pastures, wetlands, woodlands, farms, swampy areas, open fields or bottomland hardwood forests.	T (State)	Iowa	Clarke County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Ladies'-tresses, Oval	*Spiranthes ovalis*	Habitat in seasonally moist soils along open wooded margins of creeks, drainages, and intermittent streams.	T (State)	Iowa	Story, Polk, Hamilton, Decatur Counties
Ladies'-tresses, Slender	*Spiranthes lacera*	Habitats include moist sand prairies, sandy savannas, areas adjacent to paths in sandy woodlands, shrubby bogs, sandy pannes near lakes, gravelly seeps, limestone glades, bluffs, sandy pits, ditches, and abandoned fields.	T (State)	Iowa	Warren, Decatur Counties
Lamprey, American Brook	*Lampetra appendix*	Aquatic environment required. Habitat includes clear, cool streams. Adults spawning pea gravel substrates. Larvae live in areas with substrates consisting of fine sand and muck, often in backwaters or stream margins.	T (State)	Iowa	Cerro Gordo, Hardin Counties
		Inhabits deciduous and			

Lemming, Southern Bog	*Synaptomys cooperi*	mixed coniferous-deciduous forests. The grassy openings and edges of these forests, especially where sedges, ferns, and shrubs grow, and where the soil is loose and crumbly, are habitats the bog lemming prefers. It also inhabits wetter or drier sites when meadow voles are scarce or absent.	T (State)	Iowa	Story County
Lizard, Slender Glass	*Ophisaurus attenuatus*	Forage actively by day in open habitats but are commonly found taking refuge beneath boards and other debris.	T (State)	Iowa	Polk, Clarke Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Marigold, Water	*Megalodonta beckii*	Habitats include various wetlands, including vernal pools in low woodlands, swamps, soggy meadows in river floodplains, marshes, fens, seeps and springs, and ditches.	E (State)	Iowa	Cerro Gordo County
Meadowrue, Waxleaf	*Thalictrum revolutum*	Habitat is almost exclusively in remnant native prairies and sedge meadows. The majority of sites occur in full sunlight on moist, calcareous till or sandy soils.	E (State)	Iowa	Polk, Decatur Counties
Milkweed, Mead's	*Asclepias meadii*	Habitat includes dry-mesic and mesic prairies and on igneous glades.	E (Federal) T (State)	Iowa	Warren, Clarke, Decatur Counties
Milkweed, Wooly	*Asclepias lanuginosa*	Habitat includes dry, sandy or gravelly hillside prairies.	T (State)	Iowa	Franklin, Hardin Counties
Milkwort, Pink	*Polygala incarnata*	Habitat includes moist- to dry-mesic prairies.	T (State)	Iowa	Story County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Mouse, Plains Pocket	*Perognathus flavescens*	Habitat is restricted to open, well-drained areas, typically on sandy soils with sparse, grassy or brushy vegetation.	E (State)	Iowa	Polk County
Orchid, Eastern Prairie Fringed	*Platanthera leucophaea*	Habitat includes mesic prairie to wetlands such as sedge meadows, marsh edges, and bogs. Requires full sun for optimum growth and flowering and a grassy habitat with little or no woody encroachment.	E (Federal) T (State)	Iowa	Decatur County
Orchid, Hooker's	*Platanthera hookeri*	Habitat includes moist, rich deciduous woods, it is found in sandy Jack pine barrens.	T (State)	Iowa	Story County
Orchid, Leafy Northern Green	*Platanthera hyperborea*	Habitat includes full sun to full shade and in almost any moist to wet, open to semi-open habitat from acidic sphagnum bogs to highly neutral fens.	T (State)	Iowa	Story, Cerro Gordo, Worth Counties
Orchid, Western Prairie Fringed	*Platanthera praeclara*	Habitat is almost exclusively in remnant native prairies and sedge meadows. The majority of sites occur in full sunlight on moist, calcareous till or sandy soils.	T	Iowa	Polk, Hamilton, Decatur, Story, Worth, Cerro Gordo Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON	SCIENTIFIC	HABITAT	STATUS	STATE	COUNTY

NAME	NAME				
Owl, Barn	*Tyto alba*	Habitat includes open lowlands with some trees, including farmlands, plantations, urban areas, various forest types, semiarid shrub lands, and marshes.	E (State)	Iowa	Story, Clarke Counties
Owl, Long-eared	*Asio otus*	Habitat includes dense vegetation adjacent to open grassland or shrubland, and open forests.	T (State)	Iowa	Clarke County
Owl, Short-eared	*Asio flammeus*	Prefer open country, such as marshes, tundra, grasslands, savannas, shrub-steppes, and agricultural areas up to 12,000 feet. Short-eared Owls roost on the ground or in low trees or bushes.	E (State)	Iowa	Warren County
Papershell, Cylindrical	*Anodontoides ferussacianus*	Riparian environment required. Habitat restricted to living only under flat rocks or under ledges of rock walls, habitats also occupied by its glochidial host, the mudpuppy salamander.	T (State)	Iowa	Cerro Gordo, Franklin, Hamilton Counties
Pear, Brittle Prickly	*Opuntia fragilis*	Habitat includes dry sand and bedrock outcrop habitat throughout the western half of North America.	T (State)	Iowa	Hardin County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Pickerel, Grass	*Esox americanus*	Aquatic environment required. Habitat includes clear waters with an abundance of dense aquatic vegetation. They can be found in slow moving streams, permanent wetlands, and natural lakes.	T (State)	Iowa	Polk County

Pigtoe, Round	*Pleurobema coccineum*	Riparian environment required. Primarily in medium to large rivers but occasionally occurs in smaller rivers.	E (State)	Iowa	Franklin, Hardin, Hamilton Counties
Pinesap	*Monotropa hypopithys*	Inhabits pine dominated forests and pine-oak heaths.	T (State)	Iowa	Decatur County
Plum, Canada	*Prunus nigra*	Habitat includes open areas in river valleys on alluvial soil, or over limestone.	E (State)	Iowa	Hamilton County
Rail, King	*Rallus elegans*	Inhabits wetlands dominated by sedges, preferably associated with riverine floodplain systems. Require shallow water or saturated soil.	T (State)	Iowa	Decatur County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Redhorse, Black	*Moxostoma duquesnei*	Aquatic environment required. Inhabits swift flowing portions of moderate or large-sized streams with clear water. Preferred substrates include, gravel, bedrock or sand.	T (State)	Iowa	Hardin County
Sandshell, Yellow	*Lampsilis teres*	Riparian environment required. Habitat includes fine sediments, but it may also occur in coarse substrates, and in slow or moving current.	E (State)	Iowa	Cerro Gordo County
Shiner, Blacknose	*Notropis heterolepis*	Aquatic environment required. Habitat includes slow moving small meandering prairie streams, glacial lakes, and the bays and marshes.	T (State)	Iowa	Story, Polk Counties
		Aquatic environment required. Habitat is primarily in small prairie			

Shiner, Topeka	*Notropis topeka*	(or former prairie) streams in pools containing clear, clean water. Most Topeka shiner streams are perennial (flow year-round), but some are small enough to stop flowing during dry summer month.	E (Federal) T (State)	Iowa	Cerro Gordo, Hamilton Counties
Silverweed	*Potentilla anserina*	Inhabits gravelly or sandy soils such as salt marshes, beaches, coastal dunes, and estuarine flats. The silverweed tends to grow in extensive patches.	T (State)	Iowa	Hardin, Hamilton Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Skipper, Byssus	*Problema byssus*	Habitat includes high quality prairie conditions. May also be found in restored prairie habitat, or along roadsides where the larval host plant big bluestem is found.	T (State)	Iowa	Warren, Clarke Counties
Skipperling, Powesheik	*Oarisma powesheik*	Inhabits undisturbed, wet mesic habitats.	T (State)	Iowa	Cerro Gordo County
Skunk, Spotted	*Spilogale putorius*	Habitat includes semi-arid brushlands and thickets in canyons, and on rocky outcrops , on hillsides and walls of canyons. Also found in agricultural areas and riparian woodlands.	E (State)	Iowa	Story, Cerro Gordo, Polk, Franklin Counties
Slipper, Showy Lady's	*Cypripedium reginae*	" Inhabits spruce and tamarack bogs, swamps, wet meadows, wet prairies, and cool, damp woods.	T (State)	Iowa	Hamilton, Story Counties
Sparrow,	*Ammodramus*	Occupies ephemeral grassland habitats. Specific grassland features include: unbroken patches of at least 75 acres which are part of	T (State)	Iowa	Clarke, Franklin, Warren,

Henslow's	*henslowii*	larger tracts (at least 400 acres); native grass species like little bluestem, prairie dropseed, blue joint, and Indian grass.			Decatur, Polk Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Spikemoss, Meadow	*Selaginella eclipes*	Inhabits damp soils in swamps, wet fields, open woods and along stream banks	E (State)	Iowa	Worth, Cerro Gordo Counties
Tern, least	*Sterna antillarum*	Habitat includes bare alluvial and dredged spoil islands.	E	Iowa	Polk County
Trout-lily, Yellow	*Erythronium americanum*	Habitats include moist to mesic deciduous woodlands and gentle slopes in wooded areas.	T (State)	Iowa	Story County
Turtle, Blanding's	*Emydoidea blandingii*	Riparian habitat required with permanent shallow water and emergent vegetation such as marshes, swamps, bogs, and ponds. Use vernal pools extensively in spring and while traveling through the landscape.	T (State)	Iowa	Worth, Cerro Gordo, Polk, Hamilton, Story Counties
Turtle, Ornate Box	*Terrapene ornata*	Habitats include plains, prairies, open woodlands, sandy areas with scrubby vegetation.	T (State)	Iowa	Cerro Gordo, Polk Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY

Turtle, Wood	*Clemmys insculpta*	Habitat includes lowland hardwood forests and open wet meadows associated with moderate to fast current streams and rivers passing over sand or gravel substrates. They may forage in upland deciduous mesic forest and open meadows throughout the summer.	E (State)	Iowa	Cerro Gordo, Franklin Counties
Vole, Southern Red-backed	*Clethrionomys gapperi*	Inhabits damp situations in coniferous, deciduous, or mixed forests. It usually nests under roots or logs.	E (State)	Iowa	Worth County
Willow, Bog	*Salix pedicellaris*	Habitat includes neutral bogs, sedge meadows, and willow thickets at the edge of wet meadows.	T (State)	Iowa	Worth, Cerro Gordo Counties
Willow, Shining	*Salix lucida*	Habitats include borders of creeks and other wetlands, roadsides, and waste areas. Bay-Leaved Willow is occasionally cultivated in city parks and lawns.	T (State)	Iowa	Worth, Cerro Gordo, Hamilton Counties
Aster, Decurrent False	*Boltonia decurrens*	Habitat includes moist, sandy, floodplains and prairie wetlands along the Illinois River. It relies on periodic flooding to scour away other plants that compete for the same habitat.	T (Federal) E (State)	Missouri	St. Charles County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Bat, Indiana	*Myotis sodalis*	Caves, mines (hibernacula); small stream corridors with well developed riparian woods; upland forests (foraging).	E	Missouri	Harrison, Mercer, Sullivan, Linn, Macon, Randolph, Monroe, Audrain Counties

Bittern, American	*Botaurus lentiginosus*	Habitat includes dense freshwater marshes and extensive wet meadows. They prefer wetlands with thick cattail and bulrush, mixed with areas of open water. In the winter, they can be found in a wider range of habitats, including flooded willow and salt marshes.	E (State)	Missouri	St. Charles, Linn, Macon Counties
Chub, Flathead	*Platygobio gracilis*	Aquatic environment required. Inhabits diverse habitats. May be found in pools of small creeks with moderately clear water over gravel and bedrock bottom, or in large, turbid rivers with swift current and bottom of fine sand and gravel.	T (State)	Missouri	St. Charles, Montgomery Counties
Clover, Running Buffalo	*Trifolium stoloniferum*	Habitat includes mesic forests and woodlands in partial to filtered sunlight where there is a pattern of moderate periodic disturbance for a prolonged period, such as mowing, trampling, or grazing.	E	Missouri	Montgomery, Lincoln, St. Charles Counties
Ebonyshell	*Fusconaia ebena*	Requires riparian environment. The ebony shell mussel primarily inhabits large rivers in sand or gravel.	E (State)	Missouri	Lincoln, St. Charles Counties

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
		Habitat may include open wetlands, wet meadows, pastures, old fields, freshwater and brackish			

Harrier, Northern	*Circus cyaneus*	marshes, grasslands, agricultural fields, shrublands and riparian corridors. Depending on the location, harriers will nest in either dry or wetland sites.	E (State)	Missouri	Linn, Macon Counties
Hellbender, Eastern	*Cryptobranchus alleganiensis alleganiens*	Inhabits riffles in streams with gravel or rubble bottoms. Usually in water less than 1.3 m deep. Lay eggs under large flat rocks.	E (State)	Missouri	Montgomery County
Massasauga, Eastern	*Sistrurus catenatus catenatus*	Preferred habitat includes wet areas including wet prairies, marshes and low areas along rivers and lakes. In many areas massasaugas also use adjacent uplands during part of the year. They often hibernate in crayfish burrows but they may also be found under logs and tree roots or in small mammal burrows.	NL (Candidate) (Federal) E (State)	Missouri	Linn County
Milkweed, Mead's	*Asclepias meadii*	Habitat includes dry-mesic and mesic prairies and on igneous glades.	E	Missouri	Harrison, Sullivan Counties
Orchid, Eastern Prairie Fringed	*Platanthera leucophaea*	Habitat includes mesic prairie to wetlands such as sedge meadows, marsh edges, and bogs. Requires full sun for optimum growth and flowering and a grassy habitat with little or no woody encroachment.	T (Federal) E (State)	Missouri	Grundy County

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Orchid, Western Prairie Fringed	*Platanthera praeclara*	Habitat is almost exclusively in remnant native prairies and sedge meadows. The majority of sites occur in full sunlight on moist, calcareous till or sandy soils.	T	Missouri	Mercer, Grundy, Sullivan, Linn, Macon Counties
Orchid, Western Prairie Fringed	*Platanthera praeclara*	Habitat is almost exclusively in remnant native prairies and sedge meadows. The majority of sites occur in full sunlight on moist, calcareous till or sandy soils.	T	Missouri	Randolph, Monroe, Montgomery, Lincoln, Audrain Counties
Prairie-chicken, Greater	*Tympanuchus cupido*	Preferred habitat includes grassland tracts of at least 80 acres. Should include herbaceous vegetation 8-16"" tall for nesting, diverse structure and species composition for brood habitat, and dense stands of native grass or shrub thickets for winter cover.		Missouri	Harrison, Sullivan, Macon, Randolph, Monroe, Audrain Counties
Rail, King	*Rallus elegans*	Inhabits wetlands dominated by sedges, preferably associated with riverine floodplain systems. Require shallow water or saturated soil.	E (State)	Missouri	Lincoln, St. Charles Counties
Shiner, Topeka	*Notropis topeka*	Aquatic environment required. Habitat is primarily in small prairie (or former prairie) streams in pools containing clear, clean water. Most Topeka shiner streams are perennial (flow year-round), but some are small enough to stop	E	Missouri	Grundy County

		flowing during dry summer month.			

T - Threatened
E - Endangered

6.5 ENDANGERED AND THREATENED SPECIES BY STATE

COMMON NAME	SCIENTIFIC NAME	HABITAT	STATUS	STATE	COUNTY
Skunk, Spotted	*Spilogale putorius*	Habitat includes semi-arid brushlands and thickets in canyons, and on rocky outcrops , on hillsides and walls of canyons. Also found in agricultural areas and riparian woodlands.	E (State)	Missouri	Harrison, Sullivan Counties
Sturgeon, Lake	*Acipenser fulvescens*	Aquatic environment required. The lake sturgeon is a bottom dweller inhabiting the quiet waters of large rivers and lakes. It prefers shallow shoals in lakes and the deepest parts of large rivers.	E (State)	Missouri	Lincoln, St. Charles, Montgomery Counties
Sturgeon, Pallid	*Scaphirhynchus albus*	Aquatic environment required. Habitat includes where sandy substrates are plentiful, but also live in waterways that are predominately rocky.	E	Missouri	St. Charles, Montgomery Counties
Turtle, Blanding's	*Emydoidea blandingii*	Riparian habitat required with permanent shallow water and emergent vegetation such as marshes, swamps, bogs, and ponds. Use vernal pools extensively in spring and while traveling through the landscape.	E (State)	Missouri	St. Charles County

T - Threatened
E - Endangered

Reference:

- www.npwrc.usgs.gov (Northern Prairie Wildlife Research Center)
- www.fws.gov
- www.illinoiswildflowers.gov
- www.biologicaldiversity.org
- www.dnr.state.ia.us.gov
- www.plants.usda.gov
- Note: Plants are not afforded regulatory protection unless found on public lands.

6.6 SENSITIVITY MAPS

Click here for Wood River Zone Overview Map

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5011 - Platte, 20in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5022 - Capwood, 20in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5033 - Marathon, 10in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., B-4

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5041 - Paris to Jacksonville, 20in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., B-4

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., B-2

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., B-3

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., B-4

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5060 - Mason City to Clear Lake, 18in., B-1

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5061 - Clear Lake to Pine Bend, 18in., B-1 (ALL DATA IN MINNESOTA ZONE)

6.6 SENSITIVITY MAPS, CONTINUED

Click here for 5090 - Ozark Pipeline, 16in., B-1

6.7 TACTICAL PLAN INDEX

SITE #	SITE NAME

6.8 TACTICAL MAPS

Click here for 5011 - Platte, 20in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5022 - Capwood, 20in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5033 - Marathon, 10in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., (Cuivre River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., (Elk Fort Salt River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., (Mississippi River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., (South Fork Salt River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5040 - Hartford to Paris, 20in., (West Fork River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5041 - Paris to Jacksonville, 20in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., (Chariton River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., (East Fork Little Chariton River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., (Middle Fork Little River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., (Thompson River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5042 - Jacksonville to Bethany, 20in., (Weldon River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., (Middle River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., (North River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., (South River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., (Thompson River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5050 - Bethany to Des Moines, 24in., (West Little River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., (Iowa River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., (South Fork Iowa River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5051 - Des Moines to Mason City, 24in., (South Skunk River Detail)

6.8 TACTICAL MAPS, CONTINUED

Click here for 5060 - Mason City to Clear Lake, 18in., River Overview

6.8 TACTICAL MAPS, CONTINUED

Click here for 5090 - Ozark Pipeline, 16in., River Overview

6.9 TACTICAL PLANS

Click here for Tactical Plan

6.10 AREAS OF CONCERN

(b) (7)(F)

AREA NAME	COUNTY	LOCATION
Wood River Zone		
Illinois Central Gulf Railroad	Audrain	Hartford to Paris 20in
U 54	Audrain	Hartford to Paris 20in
South Fork Salt River	Audrain	Hartford to Paris 20in
West Fork Cuivre River	Audrain	Hartford to Paris 20in
Chicago and Northwestern RR	Cerro Gordo	Des Moines to Mason City 24in
Iowa Terminal	Cerro Gordo	Des Moines to Mason City 24in
Chi Mil St Paul and Pacific RR	Cerro Gordo	Mason City to Clear Lake 18in
I 35	Cerro Gordo	Des Moines to Mason City 24in

			(b) (7)(F)
I 35	Cerro Gordo	Des Moines to Mason City 24in	
S 106	Cerro Gordo	Des Moines to Mason City 24in	
S 107	Cerro Gordo	Des Moines to Mason City 24in	
U 18	Cerro Gordo	Mason City to Clear Lake 18in	
I 35	Cerro Gordo	Mason City to Clear Lake 18in	
I 35	Cerro Gordo	Mason City to Clear Lake 18in	
Burlington Northern Railroad	Clarke	Bethany to Des Moines 24in	
U 69	Clarke	Bethany to Des Moines 24in	
U 34	Clarke	Bethany to Des Moines 24in	
UNKNOWN	Decatur	Bethany to Des Moines 24in	
UNK	Decatur	Bethany to Des Moines 24in	
S 2	Decatur	Bethany to Des Moines 24in	
U 69	Decatur	Bethany to Des Moines 24in	
I 35	Decatur	Bethany to Des Moines 24in	
I 35	Decatur	Bethany to Des Moines 24in	
Thompson River	Decatur	Bethany to Des Moines 24in	
West Little River	Decatur	Bethany to Des Moines 24in	
Chi and Northwestern Railroad	Franklin	Des Moines to Mason City 24in	
UNK	Franklin	Des Moines to Mason City 24in	
UNK	Franklin	Des Moines to Mason City 24in	
I 35	Franklin	Des Moines to Mason City 24in	
I 35	Franklin	Des Moines to Mason City 24in	

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION	GPS LOCATION / COMMENTS
Wood River Zone			
S 3	Franklin	Des Moines to Mason City 24in	(b) (7)(F)
Iowa River	Franklin	Des Moines to Mason City 24in	
Chicago and Northwestern RR	Hamilton	Des Moines to Mason City 24in	
S 175	Hamilton	Des Moines to Mason City 24in	
UNKNOWN	Hardin	Des Moines to Mason City 24in	
UNK	Hardin	Des Moines to Mason City 24in	
U 20	Hardin	Des Moines to Mason City 24in	
U 20	Hardin	Des Moines to Mason City 24in	
South Fork Iowa River	Hardin	Des Moines to Mason City 24in	
Thompson River	Harrison	Jacksonville to Bethany 20in	
UNKNOWN	Lincoln	Hartford to Paris 20in	
U 61	Lincoln	Hartford to Paris 20in	
U 61	Lincoln	Hartford to Paris 20in	
S 47	Lincoln	Hartford to Paris 20in	
Cuivre River	Lincoln	Hartford to Paris 20in	
S 11	Linn	Jacksonville to Bethany 20in	
Atchison Topeka and Santafe RR	Macon	Jacksonville to Bethany 20in	
Bevier Southern Railroad	Macon	Jacksonville to Bethany 20in	
Burlington Northern Railroad	Macon	Jacksonville to Bethany 20in	
Norfolk and Western Railroad	Macon	Jacksonville to Bethany 20in	
U 36	Macon	Jacksonville to Bethany 20in	
U 63	Macon	Jacksonville to Bethany 20in	
S 3	Macon	Jacksonville to Bethany	

		20in
Chariton River	Macon	Jacksonville to Bethan 20in
East Fork Little Chariton River	Macon	Jacksonville to Bethan 20in
Middle Fork Little Chariton River	Macon	Jacksonville to Bethan 20in
It Railroad	Madison	Hartford Barge Line 12in.
It Railroad	Madison	Hartford Barge Line 20in.
UNKNOWN	Madison	Capwood 20in
UNKNOWN	Madison	Capwood 20in

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

Wood River Zone 6 - 94

6.10 AREAS OF CONCERN

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

AREA NAME	COUNTY	LOCATION
Wood River Zone		
NYC GM and O Railroad	Madison	Capwood 20in
UNKNOWN	Madison	Marathon 10in
NYC GM and O Railroad	Madison	Marathon 10in
It Railroad	Madison	Hartford to Paris 20in
UNKNOWN	Madison	Platte 20in
NYC GM and O Railroad	Madison	Platte 20in
S 3	Madison	Hartford Barge Line 12in.
S 3	Madison	Hartford Barge Line 12in.
S 3	Madison	Hartford Barge Line 20in.
S 3	Madison	Hartford Barge Line 20in.
S 3	Madison	Hartford to Paris 20in
S 3	Madison	Hartford to Paris 20in
Mississippi River	Madison	Hartford to Paris 20in

Chicago Rock Island and Pac RR	Mercer	Jacksonville to Bethany 20in
U 65	Mercer	Jacksonville to Bethany 20in
U 136	Mercer	Jacksonville to Bethany 20in
Weldon River	Mercer	Jacksonville to Bethany 20in
Norfolk and Western Railroad	Monroe	Paris to Jacksonville 20in
U 24	Monroe	Paris to Jacksonville 20in
S 151	Monroe	Paris to Jacksonville 20in
S 15	Monroe	Hartford to Paris 20in
Elk Fork Salt River	Monroe	Hartford to Paris 20in
S 161	Montgomery	Hartford to Paris 20in
Chicago and Northwestern RR	Polk	Des Moines to Mason City 24in
Cri and P Railroad	Polk	Bethany to Des Moines 24in
Cri and P Railroad	Polk	Bethany to Des Moines 24in
N and W Railroad	Polk	Bethany to Des Moines 24in
U 65	Polk	Bethany to Des Moines 24in
U 65	Polk	Bethany to Des Moines 24in
U 65	Polk	Bethany to Des Moines 24in
Wood River Zone		

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

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION
Wood River Zone		
UNK	Polk	Bethany to Des Moines 24in
UNK	Polk	Bethany to Des Moines 24in
UNK	Polk	Bethany to Des Moines 24in
UNK	Polk	Bethany to Des Moines

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

			(b) (7)(F)
		24in	
U 65	Polk	Bethany to Des Moines 24in	
UNK	Polk	Bethany to Des Moines 24in	
I 80	Polk	Bethany to Des Moines 24in	
I 80	Polk	Bethany to Des Moines 24in	
S 163	Polk	Bethany to Des Moines 24in	
South Skunk River	Polk	Des Moines to Mason City 24in	
Burlington Northern Railroad	St. Charles	Hartford to Paris 20in	
Missouri-Kansas-Texas Railroad	St. Charles	Hartford to Paris 20in	
S 94	St. Charles	Hartford to Paris 20in	
S 79	St. Charles	Hartford to Paris 20in	
U 67	St. Charles	Hartford to Paris 20in	
U 67	St. Charles	Hartford to Paris 20in	
Chi Mil St Paul and Pacific RR	Story	Des Moines to Mason City 24in	
Chi Rock Island and Pacific RR	Story	Des Moines to Mason City 24in	
Chicago and Northwestern RR	Story	Des Moines to Mason City 24in	
U 30	Story	Des Moines to Mason City 24in	
S 210	Story	Des Moines to Mason City 24in	
Chi Mil St Paul and Pacific RR	Sullivan	Jacksonville to Bethany 20in	
Chicago Burlington Quincy RR	Sullivan	Jacksonville to Bethany 20in	
S 6	Sullivan	Jacksonville to Bethany 20in	
S 5	Sullivan	Jacksonville to Bethany 20in	
Chi Rock Island and Pacific RR	Warren	Bethany to Des Moines 24in	
U 65	Warren	Bethany to Des Moines 24in	
S 92	Warren	Bethany to Des Moines	

(b) (7)(F)

		24in
Middle River	Warren	Bethany to Des Moines 24in
North River	Warren	Bethany to Des Moines 24in

Wood River Zone

6.10 AREAS OF CONCERN

AREA NAME	COUNTY	LOCATION
Wood River Zone		
South River	Warren	Bethany to Des Moines 24in
Chicago and NW Railroad	Worth	Clear Lake to Pine Bend 18in
S 105	Worth	Clear Lake to Pine Bend 18in
S 9	Worth	Clear Lake to Pine Bend 18in
Winnebago River	Worth	Clear Lake to Pine Bend 18in

SECTION 8 Last revised: February 2006

DEMOBILIZATION / POST-INCIDENT REVIEW

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)
- Identified and assigned action items
- Analysis and corrective action acceptance

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 (KPL0120).

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 (**APPENDIX A.1**) 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

Wood River Zone

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: February 7, 2013

TRAINING / EXERCISES

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:	

Wood River Zone A - 10

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: August 21, 2010

COOPERATIVE AND CONTRACTOR DOCUMENTS

Wood River 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.

<table>
<tr><th>COMPANY / CONTRACTOR</th><th>APPLICABLE COTP ZONE (S)</th><th>USCG CLASSIFICATIONS</th><th>RESPONSE TIME</th></tr>
<tr><td>Heritage Environmental Services, LLC1188 Hershal RoadSt. Louis, MO 63137
1188 Pershall Rd
Bellefontaine MO
63137</td><td>Upper Mississippi</td><td>
<table>
<tr><th></th><th colspan="4">Facilities</th><th colspan="4">Vessels</th></tr>
<tr><th></th><th>MM</th><th>W1</th><th>W2</th><th>W3</th><th>MM</th><th>W1</th><th>W2</th><th>W3</th></tr>
<tr><td>River/Canal</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td></td><td>✓</td><td>✓</td></tr>
<tr><td>Inland</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Offshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nearshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Great Lakes</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
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</td><td>6 hours</td></tr>
<tr><td>Veolia ES Special Services, Inc.785 County Road CB Suite 100Neenah, WI 54956
2905 Paine Ave.
Sheboygan WI
53081</td><td>Chicago</td><td>
<table>
<tr><th></th><th colspan="4">Facilities</th><th colspan="4">Vessels</th></tr>
<tr><th></th><th>MM</th><th>W1</th><th>W2</th><th>W3</th><th>MM</th><th>W1</th><th>W2</th><th>W3</th></tr>
<tr><td>River/Canal</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
<tr><td>Inland</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td></td><td>✓</td><td>✓</td></tr>
<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Offshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nearshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Great Lakes</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td></td><td>✓</td><td>✓</td></tr>
</table>
</td><td>8 hours</td></tr>
<tr><td>Bay West5 Empire DriveSt Paul, WI 55103
5 Empire Drive
St. Paul
MN</td><td>Upper Mississippi</td><td>
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<tr><td>Inland</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
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<tr>
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211 Holiday Avenue
Cannon Falls Mn
55009</td>
<td>Upper Mississippi</td>
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<tr><td>River/Canal</td><td>✓</td><td></td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr>
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<tr><td>Open Ocean</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
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<tr><td>Nearshore</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Great Lakes</td><td></td><td></td><td>✓</td><td>✓</td><td></td><td></td><td>✓</td><td>✓</td></tr>
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Wood River Zone B - 3

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.

Wood River Zone B - 4

FIGURE B.1-1 - EVIDENCE OF CONTRACTS

- **Heritage Environmental Services, LLC1188 Hershal RoadSt. Louis, MO 63137, Bellefontaine , MO**
- **Veolia ES Special Services, Inc.785 County Road CB Suite 100Neenah, WI 54956, Sheboygan, WI**
- **Bay West5 Empire DriveSt Paul, WI 55103, St. Paul, MN**
- **Clean Harbors, Cannon Falls, Mn**

FIGURE B.1-2 - EQUIPMENT LISTS

- **Heritage Environmental Services, LLC1188 Hershal RoadSt. Louis, MO 63137, Bellefontaine , MO**
- **Veolia ES Special Services, Inc.785 County Road CB Suite 100Neenah, WI 54956, Sheboygan, WI**
- **Bay West5 Empire DriveSt Paul, WI 55103, St. Paul, MN**
- **Clean Harbors, Cannon Falls, Mn**

FIGURE B.1-3 - DRILL DEPLOYMENT EXERICSES

- **Heritage Environmental Services, LLC1188 Hershal RoadSt. Louis, MO 63137, Bellefontaine , MO**
- **Veolia ES Special Services, Inc.785 County Road CB Suite 100Neenah, WI 54956, Sheboygan, WI**
- **Bay West5 Empire DriveSt Paul, WI 55103, St. Paul, MN**
- **Clean Harbors, Cannon Falls, Mn**

APPENDIX C Last revised: February 2006

HAZARD EVALUATION AND RISK ANALYSIS

C.1 SPILL DETECTION

Detection

Detection of a release may occur in a number of ways including:

(b) (7)(F)

- 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.

(b) (7)(F)

Operations of the SCADA System

(b) (7)(F)

C.1 SPILL DETECTION, CONTINUED

Operations of the SCADA System, Continued

- **Training**

  Pipeline Controllers are trained and qualified in compliance with DOT Operator Qualification rules. Additional training, which is assigned to pipeline controllers, is designed to be specific to their roles and responsibilities. The training assignments may be completed by different methods, such as computer-based training modules, controlled documents, classroom, or other approved training methods.

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.

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.

The Worst Case Discharge for each pipeline segment is the largest breakout tank. These tank volumes

(b) (7)(F)

[redacted]

(b) (7)(F)

[redacted]

(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

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
Health Hazard	**4 = Extremely Hazardous 3 = Hazardous 2 = Warning**			**Fire Hazard (Flash Point)**	**4 = Below 73? F, 22? C 3 = Below 100? F, 37? C**	

	1 = Slightly Hazardous **0 = No Unusual Hazard**		**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

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 3.1-7
• 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

• 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, Figure 1-4
• 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

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: Tuesday, January 29, 2013

ADDITIONAL INFORMATION